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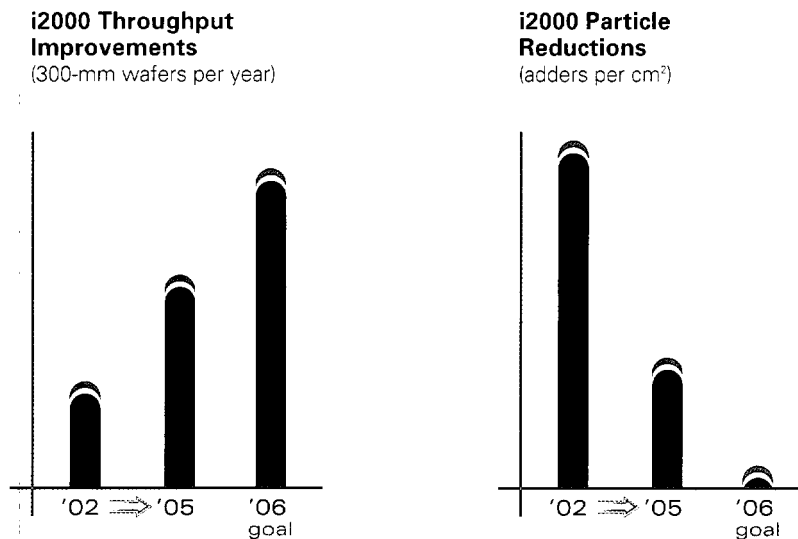
ibis

MOVING **SIMOX** FORWARD

MOVING SIMOX FORWARD—HIGHER QUALITY AT LOWER COSTS

Having transitioned from a two-part business—which included producing SIMOX-SOI wafers *and* manufacturing the equipment used to make the wafers—to one solely devoted to manufacturing equipment, Ibis is entirely focused on providing the best possible SIMOX implanters to the world's silicon wafer suppliers.

In support of our customers' needs, we have made significant progress in system performance over the last three years, and we have set some ambitious goals for improved system throughput and reduced particle counts over the next few quarters. The result is an implanter that enables the production of less expensive, higher quality SIMOX-SOI wafers—exactly what our key customers have asked for.



Ambitious goals have been set for 2006

ibis 

COMPANY PROFILE

Ibis Technology Corporation is a leading provider of SIMOX-SOI implantation equipment to the worldwide semiconductor industry.

SOI (Silicon-on-Insulator) is a technology used to create an insulating layer within a silicon wafer, isolating the top layer of silicon where the active transistors will be manufactured from the rest of the bulk silicon wafer. The insulating layer acts as a barrier that can reduce electrical leakage from the transistors, resulting in semiconductor devices that are faster and more power efficient.

SIMOX (Separation-by-IMplantation-of-Oxygen) refers to a technique used for manufacturing SOI wafers where an oxygen implanter creates a very thin insulating layer within the wafer, just below a thin layer of silicon on the top of the wafer.

FINANCIAL HIGHLIGHTS

Years Ended December 31,	2000	2001	2002	2003	2004
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(In thousands, except for per share data)

Statement of Operations Data:

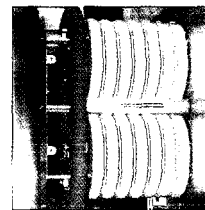
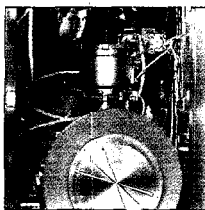
Contract and other revenue	\$ 533	\$ 518	\$ 283	\$ 660	\$ 391
Equipment revenue	5,769	1,525	6,103	8,782	7,535
Total revenue	6,302	2,043	6,386	9,442	7,926
Loss from continuing operations	\$ (3,851)	\$ (6,776)	\$ (7,285)	\$ (3,853)	\$ (5,641)
Net income (loss)	\$ (1,502)	\$ (9,595)	\$ (14,096)	\$ (21,450)	\$ (10,919)
Net income (loss) per common share	\$ (0.18)	\$ (1.15)	\$ (1.53)	\$ (2.21)	\$ (1.02)
Weighted average common shares outstanding	8,286	8,378	9,208	9,728	10,666

As of December 31,	2000	2001	2002	2003	2004
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(In thousands)

Balance Sheet Data:

Working capital	\$32,585	\$11,232	\$ 5,551	\$ 12,607	\$ 12,415
Total assets	56,299	54,920	51,699	35,343	22,283
Stockholders' equity	49,519	40,360	38,755	31,117	20,420



PRESIDENT'S LETTER

Early in 2004, one of the world's leading silicon wafer manufacturers purchased an Ibis i2000 implanter. This was a positive sign, signaling that the SOI market had matured sufficiently for a leading wafer supplier to begin developing a 300-mm SIMOX-SOI manufacturing capability. For Ibis, it was one more indicator that the time was right to take the next step forward in our long-standing business strategy. After many years of having a two-part business—selling wafers and equipment—it was time for us to exit the wafer business and increase our concentration on the equipment business. Accordingly, we announced in July 2004 that we were discontinuing our wafer manufacturing business.

The wafer manufacturers of the world responded to this change quickly and positively. New doors began to open, and we began building alliances and partnerships that were never before possible with the leading wafer suppliers.

In January of 2005, we received an order from a second wafer supplier, Sumitomo Mitsubishi Silicon Corporation (SUMCO), for an Ibis i2000 implanter. This lends further credence to our strategic move to focus on equipment sales.

Today, our mission is clear: to be a leading, global supplier of oxygen implanters to the world's leading silicon wafer suppliers, enabling them to meet the anticipated demands of the worldwide semiconductor industry for SIMOX-SOI wafers.

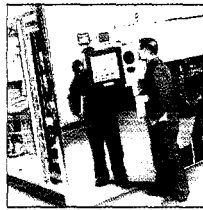
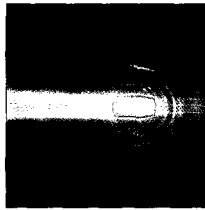
Financial Results

Due to the fact that the company discontinued its wafer manufacturing business in July 2004, the reporting of wafer sales/revenue is now being reported net of related costs as gain or loss from discontinued operations in the company's statements of operations. Financial information for this and prior periods has been adjusted accordingly for comparative purposes.

Fiscal 2004 total revenues were \$7.9 million, compared to total revenues of \$9.4 million for fiscal year 2003. Net loss for fiscal year 2004 was \$10.9 million, or \$1.02 per share, including a loss from discontinued operations of \$5.3 million, or \$0.49 per share. Net loss for fiscal 2004 excluding the loss from discontinued operations was \$5.6 million, or \$0.53 per share. Net loss for fiscal year 2003 was \$21.5 million, or \$2.21 per share, including a loss from discontinued operations of \$17.6 million, or \$1.81 per share. Net loss for fiscal 2003 excluding the loss from discontinued operations was \$3.9 million, or \$0.40 per share.

Doors are opening

There are several important benefits that have begun to accrue to Ibis because we have discontinued our wafer business. To begin with, doors are opening. Having erased any perception that we are competing against our wafer supplier customers, we are now



able to partner with them more effectively in technology development programs. The combination of their silicon wafer expertise and our SIMOX-SOI expertise already appears to be yielding positive results.

One of our wafer supplier customers, SUMCO, recently said, "We believe that the strong collaboration between our two companies will continue to lead to improved quality and lower cost for SIMOX-SOI. High quality and low cost will make SIMOX-SOI the high volume SOI choice in the future."

Partnering with the wafer suppliers is also allowing us to benefit from their years of relationship building within the semiconductor industry. They have earned the respect and trust of the chipmakers, and have built relationships which are likely to aid in the timely evaluation and acceptance of SIMOX-SOI as a foundation for the construction of next-generation integrated circuits (ICs).

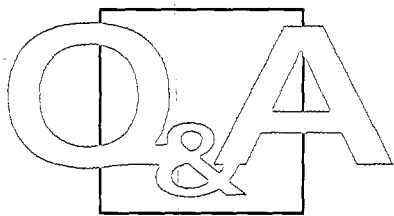
In addition, the discontinuance of our wafer manufacturing business is enabling us to focus our resources on improving the performance of our i2000 implanter, and advancing the capabilities of SIMOX-SOI technology. With these resources now sharply focused—and with our effective partnering with the wafer suppliers—we have established some ambitious goals for throughput and quality performance parameters over the next few quarters. This progress is fundamental to supporting and furthering the semiconductor industry's adoption of SIMOX-SOI.

Outlook

Our sale of i2000 implanters to two of the world's leading silicon wafer suppliers is encouraging, as is the fact that we are now able to partner with these wafer suppliers in new, more meaningful ways. Although the road to widespread industry adoption of SIMOX-SOI for high volume production applications is long and unpredictable, we believe that our recent progress strengthens our ability to compete and succeed.

With the ongoing support of our dedicated staff and valued investors, we greet 2005 with renewed energy and sharpened focus.

Martin J. Reid
President and Chief Executive Officer



By exiting the wafer manufacturing business, has Ibis lost any of its ability to pursue various developmental programs for the i2000 implanter or the SIMOX process?

What types of projects are Ibis' engineers working on?

Who are the wafer suppliers who have ordered Ibis i2000 implanters?

Robert Dolan, Ibis V.P. Wafer Technology

No. We still maintain a complete balance-of-process capability for both 200- and 300-mm wafers. This means we have the cleaning, metrology and annealing equipment needed to process wafers coming out of our implanters. So, we are able to rapidly measure and evaluate the results of our engineering projects. In fact, without the demands of dealing with the commercial wafer production business, we have more flexibility and resources to devote to technology development.

Gerry Cameron, Ibis COO

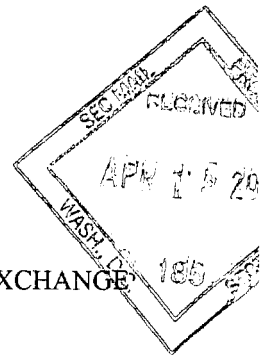
There's actually a long list of things we're working on, but our priorities are focused on two key topics: increasing throughput and reducing particle counts. Although these have always been issues we have worked on, the fact that we are now working with several wafer supplier customers has focused more attention on this work, primarily because these customers are more interested in production than research and development. Consequently, we've established some ambitious goals for progress in both throughput and particle reduction.

Al Alioto, Ibis Director of Sales

Our first wafer supplier customer for an i2000 implanter asked that we not publish their name, and we will comply with their request. However, our second wafer supplier customer for an i2000 implanter has given us permission to identify who they are. This customer is Sumitomo Mitsubishi Silicon Corporation (SUMCO), one of the world's top two manufacturers of silicon wafers. SUMCO is headquartered in Tokyo, Japan, and operates fourteen manufacturing facilities located in Asia, Europe and the United States.

We should also note that Simgui—a growing force in the electronic and semiconductor materials industry in China—and SUMCO are using earlier generation Ibis implanters to manufacture smaller diameter SIMOX-SOI wafers. We are very pleased to have all of these companies as Ibis customers. We respect their experience and expertise, and look forward to a long and mutually profitable relationship with them.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549



FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2004

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period _____ to _____

Commission file number: 0-23150

IBIS TECHNOLOGY CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts
*(State or other jurisdiction
of incorporation or organization)*

04-2987600
(I.R.S. Employer Identification No.)

32 Cherry Hill Drive, Danvers, MA
(Address of principal executive offices)

01923
(Zip Code)

Registrant's telephone number, including area code: **(978) 777-4247**

Securities registered pursuant to Section 12(b) of the Exchange Act:

None.

Securities registered pursuant to Section 12(g) of the Exchange Act:

Common Stock, \$.008 Par Value Per Share
(Title of class)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2). Yes ☐ No ☒*

*The company previously reported on its Form 10-K for the fiscal year ended December 31, 2003 and the Form 10Q for the fiscal quarter ended March 31, 2004 that it was an accelerated filer, however, please note that the Company is not and was not an accelerated filer prior to the date of this filing.

The aggregate market value of the registrant's voting stock held by non-affiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate) as of the last business day of the registrant's most recently completed fourth fiscal quarter (based on the last reported sale price on the Nasdaq National Market of such date) was \$ 30,658,744.

As of February 28, 2005, the registrant had 10,719,595 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The following documents (or parts thereof) are incorporated by reference into the following parts of this Form 10-K: Certain information required in Part III of this Annual Report on Form 10-K is incorporated from the Registrant's Proxy Statement for the Annual Meeting of Stockholders to be held on May 12, 2005.

PART I

Item 1. BUSINESS

Business Outlook

This Form 10-K contains forward-looking statements within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995 that relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology, such as “may,” “will,” “should,” “could,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “project,” “predict,” “intend,” “potential” or “continue” or the negative of such terms or other comparable terminology, although not all forward-looking statements contain such terms. In addition, these forward-looking statements include, but are not limited to, statements regarding, among other things, (i) customer interest in and market acceptance of, the Company’s SIMOX SOI technology, (ii) the Company’s belief that wafer manufacturers will become the primary suppliers of SIMOX-SOI, wafers to the chip making industry, (iii) the company’s ability to conduct its operations in a manner consistent with its current plan and existing capital resources or otherwise to obtain additional implanter orders or to secure financing to continue as a going concern, (iv) the timing and likelihood of revenue recognition on orders for the Company’s implanters, (v) the timing and impact of the Company’s decision to discontinue its wafer manufacturing and sales operation, (vi) the Company’s plan to focus on supplying implanters to wafer manufacturers, (vii) the Company’s expectations regarding future orders for i2000 implanters, and (viii) and the adoption rate of silicon-on-insulator, or SOI, technology. Such factors and uncertainties include, but are not limited to those set forth below in “Business – Risk Factors” and elsewhere throughout this Form 10-K. All information set forth in this Form 10-K is as of the date of this Form 10-K, and Ibis undertakes no duty to update this information, unless required by law.

Introduction

Ibis Technology Corporation (“Ibis”) develops, manufactures and markets SIMOX-SOI implantation equipment for the worldwide semiconductor industry. SIMOX, which stands for Separation by IMplantation of Oxygen, is a form of silicon-on-insulator, or SOI, technology that creates an insulating barrier below the top surface of a silicon wafer. Our proprietary oxygen implanters produce SIMOX-SOI wafers by implanting oxygen atoms just below the surface of a silicon wafer to create a very thin layer of silicon dioxide between the thin operating region of the transistor at the surface and the underlying silicon wafer itself. The buried layer of silicon dioxide acts as an insulator for the devices fabricated on the surface of the silicon wafer and reduces the electrical current leakage which otherwise slows integrated circuit performance, increases the loss of power during circuit operation. The buried layer of silicon dioxide also helps to reduce the heat of the transistor. Through this process our customers can produce integrated circuits, which we believe, offer significant advantages over circuits constructed on conventional silicon wafers. We believe that these advantages include:

- substantially improved speed for microprocessors and other logic integrated circuits,
- reduced power consumption,
- reduced soft error rate, and
- higher temperature operation.

We believe these characteristics make SIMOX-SOI wafers, and the finished integrated circuits, well-suited for many commercial applications, including:

- servers and workstations,
- portable and desktop computers,
- entertainment devices such as TVs and game consoles.
- wireless communications and battery powered feature rich hand held devices including cell phones, and
- harsh-environment electronics.

When Ibis began operations in 1988, much of our revenue was derived from research and development contracts and sales of wafers for military applications. Over the years, there was a shift in revenue to sales of SIMOX-SOI wafers for commercial applications and the nature of our business had

evolved through stages where previously our revenue was at times primarily derived from selling wafers for evaluation purposes, and at other times it was primarily derived from equipment sales. This is a normal path to follow when developing and promoting a fundamental new technology, especially as it relates to the semiconductor industry embracing any change that affects fabrication operations. In mid 2004 we exited the wafer manufacturing business to concentrate our efforts on supplying equipment and process technology to our equipment customers, the major silicon manufacturers. We did this having advanced our primary goal of establishing SIMOX-SOI as a leading SOI technology with the potential to be the low cost, high volume offering. We now intend to work with the major wafer manufacturers to support the market acceptance of 200 and 300mm SIMOX technology through continuing process research and development in conjunction with our customers. We believe this effort will directly support the wafer manufacturers decision to purchase our equipment.

Our fundamental SIMOX-SOI technology has been developed, refined, and tested over the last dozen years. In 2002, Ibis introduced the current-generation of SIMOX-SOI technology, which included our second generation oxygen implanter (i2000™) and the modified low dose ("MLD") SIMOX wafer process which was licensed to us by IBM. The i2000's flexibility, automation and operator-friendly controls allow this tool to produce a wide range of SIMOX-SOI wafer products using a range of manufacturing processes, including Advantox® MLD and Advantox MLD-UT wafers. We believe the ability of the i2000 implanter to produce eight and twelve-inch (or 200 and 300 mm) SIMOX-SOI wafers using different processes from standard to the latest MLD process positions us to capitalize on the growing SOI market. In early 2004 we received an order valued at approximately \$7.0 million for an i2000 oxygen implanter from a major silicon wafer manufacturer. During the third quarter of 2004 this tool was accepted by the customer. In early January 2005 we received an order for an i2000 oxygen implanter, from another major silicon wafer manufacturer, that we anticipate will ship in the second quarter of this year. We believe we will achieve final acceptance at the customer's site in the third or fourth quarter of 2005.

We believe that strategic alliances with existing and potential customers will continue to play an important role in developing a worldwide commercial market for SIMOX-SOI wafers and implanters. We currently have agreements with IBM, Shin Etsu and SUMCO.

Over the past three years, we have sold SIMOX-SOI wafers to many of the world's leading commercial semiconductor manufacturers and foundries, including Advanced Micro Devices, Honeywell, IBM, Intel, Motorola, Samsung, Texas Instruments, and TSMC. We have also shipped limited quantities of SIMOX-SOI wafers to the world's largest silicon wafer manufacturers, including Komatsu, MEMC Electronic Materials, Inc. ("MEMC"), Wacker-NSCE Corporation, Shin-Etsu Handotai Co., Ltd. ("SEH") and Sumitomo Mitsubishi Silicon Corporation ("SUMCO") which we believe will be our equipment customers of the future. In addition, we have sold SIMOX implanters to IBM, Shin Etsu, SUMCO and Shanghai Simgui ("Simgui").

We were incorporated in Massachusetts in October 1987 and commenced operations in January 1988. Our executive offices are located at 32 Cherry Hill Drive, Danvers, Massachusetts 01923 and our telephone number is (978) 777-4247. Our web site is located at www.ibis.com. We make our periodic reports on Form 10-K, Form 10-Q and Form 8-K (and any amendments to those reports) available on the web site, free of charge, as soon as reasonably practicable after these reports are filed with or furnished to the Securities and Exchange Commission. We have not incorporated by reference into this document the information on our web site and you should not consider it to be a part of this document. Our web site address is included in the document as an inactive textual reference only. The public can also obtain access to such reports at the Securities and Exchange Commission's Public Reference Room at 450 Fifth Street, NW, Washington, DC 20549, by calling the SEC at 1-800-SEC-0330 or by accessing the SEC's website, which is www.sec.gov. Unless the context otherwise requires, the terms "Ibis", "we", "us", and "our" refer to Ibis Technology Corporation.

Our Strategies

Ibis' primary objective is to be the dominant supplier of oxygen implantation equipment to the world's silicon wafer manufacturers so they can, in turn, efficiently and cost-effectively supply SOI wafers to the global semiconductor industry. Our primary emphasis is on implanter sales and support. We also plan on continuing process development for SIMOX-SOI wafers in partnership with our equipment customers to hasten the adoption and broaden the market acceptance of SIMOX-SOI. Key elements of our strategies for achieving this objective include:

- *Capitalizing on Fundamental Trends in Semiconductor Manufacturing.* We believe that semiconductor manufacturers face an increasing demand for faster integrated circuit speed, reduced power consumption, smaller feature size and immunity to soft errors, which are changes in logic state due to exposure to radiation. In addition, heat generation caused by current leakage has become a major problem at the 90 nm feature size and will continue to increase in importance at the 65 and 45 nm technology nodes as production comes on stream over the next 2-5 years. In our experience, these manufacturers prefer to satisfy the demand with minimal additions or modifications to their existing equipment base. We believe that SIMOX-SOI technology is a leading alternative in addressing these requirements and that there will be a continuous migration of SOI wafer manufacturing into the major silicon wafer suppliers. We reach this conclusion for a number of reasons. First, we believe that tremendous price pressure exists on commodity type products, such as silicon wafers. Because the starting wafer represents a significant component of the SOI wafer cost, silicon wafer manufacturers should have a natural cost structure advantage leading to a higher gross margin, and therefore can manage such pricing pressures better than stand-alone SOI producers that do not also produce the silicon wafer itself. Second, we expect that the pricing pressures will encourage silicon wafer manufacturers to seek out higher margin products, like SOI wafers, to increase their margins. Third, we believe that silicon wafer manufacturers have traditionally developed proprietary intellectual property in silicon materials science, which can be applied to designing optimal starting wafers for SOI production. This should give them an advantage in both minimizing wafer cost and maximizing SOI wafer quality and yield. Fourth, our experience suggests that silicon wafer manufacturers already have a well-developed infrastructure for the manufacture, sale and marketing of large volumes of substrates. Lastly, we believe that there is greater efficiency in producing the SOI wafer as part of the wafer manufacturers existing product flow, specifically avoiding the need to re-package, re-clean, re-inspect and re-ship substrates twice, once as starting silicon wafers, and a second time as SOI wafers. Therefore, as a result of these trends, we expect our ultimate customers will be drawn principally from these silicon wafer manufacturers and we plan to focus a majority of our technical and marketing resources on the leading silicon wafer manufacturers and our major key customers in the semiconductor industry who are the leaders in the adoption of SOI technology. We expect that implanter sales to *chipmakers* should be minimal, and focused on SOI processes, which the chipmaker wishes to keep proprietary, such as selective (or patterned) SIMOX, or other specialty substrates.
- *Pursuing Strategic Marketing, Manufacturing and Development Alliances.* We intend to continue to pursue relationships through which third parties will provide assistance with joint research and development opportunities on both process and equipment. In January 2003, we entered into an agreement with IBM to develop an enhanced, modified low-dose ("MLD") process for the manufacture of SIMOX-SOI wafers.
- *Enhancing and Extending Current Product Offerings.* We intend to continue to use our resources and our strategic partners' technical expertise to improve our existing equipment products, expand our core product functionality, add products to our existing product line and further advance our process technology. Our implanter research and development programs are aimed at improving quality, and increasing throughput which results in reducing the cost of SIMOX-SOI wafers.

- *Increasing our SIMOX-SOI Equipment Manufacturing Capacity.* Going forward we intend to gauge SIMOX-SOI equipment demand from the silicon wafer manufacturers and adjust our equipment manufacturing capacity accordingly. We currently have capacity to build approximately 10 implanters per year in our existing manufacturing space.

Marketing, Sales and Customers

Over the last several years, Ibis had focused on integrating SIMOX-SOI wafers into commercial applications. We believe that commercial shipments of our wafers had been used principally for evaluation purposes or pilot production in products, including microprocessors, gate arrays, ASICs (application specific integrated circuits), and memories (DRAMs, SRAMs, etc.). We believe that one of our customers is providing SIMOX-SOI wafers for commercial production and that a number of our potential customers are sampling SIMOX wafers or are developing prototype products.

Our primary focus today is on getting the silicon wafer manufacturers to embrace SIMOX-SOI technology. To date, where we have succeeded, we have accomplished this through joint research and development programs, sales representative agreements, and providing SIMOX-SOI wafer foundry services to them. We intend to assist the wafer manufacturers in becoming the producers of SIMOX-SOI wafers by selling and servicing oxygen implanters along with continuing to improve SIMOX wafer processing technology via our SIMOX process engineering group.

In August 2004 upon exiting the wafer manufacturing business Ibis cancelled its Sales Representative Agreement with MEMC for SIMOX SOI wafers. We believe that by canceling this agreement we have opened new market opportunities with the other silicon wafer manufacturers for the sale of our i2000 oxygen implanters. We also believe this has allowed Ibis to work closely as an independent, non-competitive resource with several of the leading wafer manufacturers regarding SIMOX-SOI process improvements.

The following table sets forth, in thousands of dollars, the amount of revenue derived from our significant customers during the fiscal years ended December 31, 2002, 2003 and 2004, as well as the percent of our revenue represented by these customers' purchases (in thousands):

<u>Customer</u>	<u>2002</u>		<u>2003</u>		<u>2004</u>	
	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>
IBM	\$381	6%	\$8,564	91%	\$384	5%
Simgui	\$5,555	87%	\$526	6%	\$5	--
SEH	--	--	--	--	\$7,000	88%

The revenue from SEH in 2004 is for the sale of an i2000 oxygen implanter for approximately \$7.0 million. The revenue from IBM in 2003 resulted primarily from the sale of an i2000 oxygen implanter at a sale price of approximately \$8.0 million. Revenues from Simgui in 2002 represent the sale of an Ibis i1000 oxygen implanter and certain parts.

Sales to overseas customers in 2002, 2003 and 2004 were 91%, 9%, and 95% of total revenue, respectively. In 2002 and 2003 sales to China were 87% and 6%, respectively, of total revenue, which was primarily attributable to Simgui. In 2004, sales to Japan were 95% of total revenue, which was primarily attributable to Shin Etsu Handotai ("SEH").

Strategic Alliances

Ibis has entered into a number of strategic alliances that we believe enable us to better address our target market, to advance our technology more effectively, and to match our technical developments and expansion to the needs of our key customers. We believe that strategic alliances with existing and potential customers will continue to play an important role in developing a worldwide commercial market for our SIMOX-SOI implanters.

We have a long-standing relationship with SUMCO which began as a sales distribution arrangement, progressed to a joint research and development effort, and ultimately evolved into SUMCO's purchase of an Ibis 1000 oxygen implanter in order to establish a Japanese-based manufacturing facility for SIMOX-SOI wafers. This implanter was installed in SUMCO's wafer manufacturing facility in Chiba, Japan in July 2001. In 1999, we completed an agreement to license our standard and Advantox SIMOX-SOI wafer fabrication process to SUMCO. Under this agreement we received an initial royalty fee and are entitled to future royalties based on a percentage of SUMCO's sales of Advantox SIMOX-SOI wafers that are manufactured using the licensed process. More recently SUMCO has ordered an i2000 oxygen implanter which we believe will be delivered during the second quarter of 2005.

In January 2003, we announced the signing of a Joint Development Agreement with IBM. The objective of the agreement was to develop an enhanced, MLD process for the manufacture of SIMOX-SOI wafers, which are used as the starting material in the manufacture of advanced integrated circuits ("ICs"). Aimed at producing lower-cost, higher quality SIMOX-SOI wafers with thinner top silicon layers, the joint development work was being conducted at both Ibis and IBM. We believe that both companies brought extensive expertise and experience regarding SIMOX-SOI technology to the joint effort. IBM, a pioneer in the development and adoption of SOI technology, developed the original MLD process for high quality, low cost SIMOX-SOI wafers. IBM then licensed Ibis to manufacture SIMOX-SOI wafers using the production-proven MLD process for sale to IBM and all other Ibis customers. Our implanters can operate using both the MLD process and other processes as well, including non-proprietary processes.

In February 2004, we announced the signing of a service agreement with Tokyo Iovenus based in Tokyo, Japan. This agreement provides for local training of Japanese service engineers for our oxygen implanter customers in Japan.

Research and Development

Ibis has active research and development programs in both equipment and wafer process technology. For the past two years a primary focus has been developing capacity to produce 300 mm SIMOX wafers. This required the development of a new generation oxygen implanter, the i2000, and the procurement and qualification of annealing, cleaning, and metrology tools for balance of process at 300 mm.

The proprietary i2000 was designed to support the volume production of high quality SIMOX-SOI 200 and 300 mm wafers for the global semiconductor industry. We began shipping 300 mm SIMOX qualification wafers in early 2002. The i2000 duplicates the process environment of the Ibis 1000. To minimize process risks; however, it incorporates a number of features designed to improve throughput and reduce costs. These include increased beam current, faster wafer handling, off-hub wafer cooling, and modular construction, which we believe will enable improved serviceability and diagnostics, while simplifying the assembly and shipping of the machine. We also believe that the simpler beam line design of the i2000 also offers extensive capabilities, facilitating the manufacture of the Advantox product portfolio. We believe that taken together, these features significantly increase productivity of the i2000 over the Ibis 1000. Finally, the i2000 is designed to be far more fab friendly than the Ibis 1000. It is designed to be bulkhead or ballroom mounted in the clean room, offers front-opening unified pod (FOUP) capability and meets SEMI safety and ergonomic guidelines. We also believe that the i2000's improved automation and operator-friendly controls will improve product yield and afford ease-of-use. Our plans are to improve the i2000 in terms of both quality (reduced particles) and quantity (increased throughput) to provide continuous improvement to the cost of ownership for our customers.

Our wafer technology R&D has concentrated on enhancing the range of potential commercial applications for Ibis' SIMOX-SOI wafers by:

- Refining techniques to produce SIMOX-SOI wafers of higher quality. In the fall of 2004 we announced a 3x to 4x improvement in the silicon roughness of the SIMOX MLD;
- Jointly developing a technology for manufacturing high resistivity SIMOX-SOI wafers for mixed signal and radio frequency ("RF") applications with a major silicon wafer manufacturer. With this

alliance, we developed advancements in SIMOX wafer manufacturing, including reduced wafer cost, scalability to 300 mm and stability of the material's high resistivity characteristic through thermal cycling common in integrated circuit manufacturing. We filed a joint patent application with SEH entitled *Method of Producing a High Resistivity SIMOX Silicon Substrate* in May 2003. At this writing this patent is still pending;

- Processing strained silicon (another emerging wafer-materials technology) for use in SOI ("SSOI" wafers), an innovation enabling a further significant boost of device speed for complementary metal oxide semiconductor ("CMOS") products. Improved electron mobility in strained silicon leads to an increased drive current in MOS devices and is complemented by benefits provided by SOI, such as reduction of parasitic capacitances in CMOS devices. We assist our customers in their development of SSOI SIMOX wafers and
- Responding to specific customer requirements and emerging industry trends, such as the development of our Advantox MLD-UT (ultra thin) product line to address requirements for fully depleted devices. The term "fully depleted" describes a MOS transistor structure in which the depletion region under normal operation extends as far as a buried insulator layer. We believe that ultra-thin SOI wafers provide superior results, especially in terms of increased power efficiency and heat reduction in the manufacture of fully depleted substrate transistors for next generation semiconductor devices.

During the fiscal years ended December 31, 2002, 2003 and 2004, Ibis' internally funded research and development expenses were approximately \$6.2 million, \$5.4 million and \$5.3 million or 98%, 57% and 67% of our revenues, respectively.

Competition

We believe we face three general sources of competition: (1) direct SIMOX-SOI competition, (2) competing SOI technologies, and (3) competing non-SOI technologies.

Among direct SIMOX-SOI competitors, we believe we are presently the only manufacturer of SIMOX-SOI implanters. To our knowledge, Hitachi, Ltd. of Japan had been the only other company manufacturing SIMOX implanters and has sold a limited number of tools in prior years. We believe that in early 2004, Hitachi exited this business. We are not aware of plans by any of the major ion implant manufacturers including Hitachi to design and develop oxygen ion implanters, but they may already have such plans, or may develop them in the future. We believe that it would take one to three years to develop such an implanter.

We also believe that SUMCO, Wacker (Siltronic), Komatsu and Simgui are manufacturing or marketing SIMOX wafers. We expect that the availability of SIMOX-SOI wafers from silicon wafer manufacturers will help address customer concerns about adequate sources of supply and their desire to purchase all of their silicon wafer requirements (e.g., bulk silicon, epitaxial, strained silicon and SOI wafers) from the same company. Our objective is to be the dominant supplier of SIMOX implanters to the world's silicon wafer manufacturers so they can, in turn, efficiently and cost-effectively supply SOI wafers to the global semiconductor industry. In addition, we believe that these wafer manufacturers would be potential equipment customers of ours.

The second source of competition for us is the development of alternative SOI materials. The approach that most directly competes with SIMOX is thin-film bonded SOI wafers. The majority of SOI wafers are produced with this technology. SOITEC, a French-based company that spun off from LETI, a French government research lab, uses a bonded method. The thin-film bonded approach uses two silicon wafers, one or both having a thermally-grown oxide layer, which are first bonded together to form the silicon/silicon dioxide/silicon structure. A majority of one of the wafers is removed or separated from the double-wafer structure, and the remaining portion serves as the device layer of the SOI wafer. The most popular method is to transfer the thin layer using wafer splitting techniques, allowing the rest of the wafer to be reclaimed and reused. Regions of stress are first created using implantation and/or epitaxial growth. The wafer is split along the stress interface by the application of heat (SOITEC's Smartcut® process), a gas jet (Silicon Genesis' process), or a water jet (Canon's ELTRAN® process). SEH also offers a thin SOI Unibond® wafer manufactured with the SmartCut® process, which is licensed from SOITEC. Our evidence to

date suggests that both SIMOX and bonded wafers perform equally well. We believe, however, that the SIMOX process can result in an inherently lower manufacturing cost in higher volume requirements. We also believe that, at this stage in the market's development, multiple SOI suppliers will help accelerate the adoption of SOI technology.

The third source of competition is derived from alternative non-SOI technologies designed to obtain benefits similar to those of SOI, including improvements to existing technologies. Significant resources are continually expended to improve epitaxial and conventional silicon wafers.

The semiconductor industry has demonstrated its resourcefulness in improving materials through creative circuit design and manufacturing techniques, thereby extending the useful life of conventional substrates, and we cannot be sure that it will not continue to do so. The relatively lower cost of these substrates provides an incentive to the semiconductor industry to improve existing material without moving to new, more advanced substrates. In addition, complex variations of more conventional approaches, such as elaborate circuit structures built on conventional silicon substrates, and compound materials (such as silicon-germanium, gallium-arsenide, indium phosphide, etc.), are other alternative substrate choices. Strained silicon is a technology that can be used to increase the operating speed of computer chips, such as microprocessors. The spacing between silicon atoms is stretched – or strained - farther apart, allowing electrons to flow with less resistance, leading to chips that are faster, as reported by IBM. The emergence of strained silicon in wafer-materials technology will lead to comparisons with SOI, among other emerging wafer-materials technologies. Although both strained silicon and SOI can be wafer-material technologies that can increase chip speed, they work in different – and complementary – ways and if combined can provide additional benefits.

Strained silicon increases transistor speed by increasing the mobility of electrons traveling through the top silicon. On the other hand, SOI increases transistor speed by reducing parasitic capacitances associated with source and drain junctions. Therefore, we believe strained silicon and SOI are complementary and mutually enhancing - not competing – technologies, although one technology may be adopted without the other. We believe the real wave of the future will be combining these two complementary technologies, much like the way copper interconnects, low k dielectric materials and SOI substrates have been combined.

Backlog

Ibis' backlog consists of equipment revenue expected to be recognized during 2005, spare parts and other contracts expected to be performed during 2005. The backlog is as follows:

	<u>As of February 28,</u>	
	<u>2004</u>	<u>2005</u>
Equipment related orders	\$7,000,000	\$6,042,000
Contracts/service	<u>271,000</u>	<u>9,000</u>
Total	<u>\$7,271,000</u>	<u>\$6,051,000</u>

All customer orders are subject to modification or cancellation by the customers. Backlog can, and often does fluctuate significantly based upon, among other matters, the timing and receipt of orders. Therefore, variations in backlog may not represent a fair indication of future business trends.

Patents and Proprietary Rights

Ibis's success is dependent in part upon certain proprietary technologies and core intellectual property. Ibis has been awarded a number of patents and has a number of pending patent applications. For example, we added three patents to our intellectual property portfolio during 2003 and 2004 and we have more than two-dozen patents pending relating to our proprietary i2000 oxygen implanter or the SIMOX fabrication process. Additionally, we diligently monitor our research and development process to identify inventions that warrant pursuing patent protection.

Notwithstanding our patent portfolio strategy, we rely largely upon trade secret protection and confidentiality and proprietary information agreements to safeguard our proprietary technology. Towards this end, all of our employees currently are required to execute confidentiality agreements pursuant to which they agree to assign to us all patent rights and technical or other information developed by them during their employment with us and also agree not to disclose any trade secret or confidential information without our prior written consent.

Despite the efforts we take to protect our proprietary technologies and core intellectual property, the use of contractual, statutory and common law protections offer only limited protections. We cannot ensure that patents will issue from our pending applications or from any future applications or that, if issued, any claims allowed will be sufficiently broad to protect our technology. In addition, we cannot ensure that any patents that have been or may be issued will not be challenged, invalidated or circumvented or that any rights granted by those patents would protect our proprietary rights. Failure of any patents to protect our technology may make it easier for our competitors to offer equivalent or superior technology. In addition, unauthorized parties may attempt to copy or otherwise misappropriate aspects of our products or services, or to obtain or use information that we regard as proprietary. Even if a competitor's products were to infringe patents owned or licensed by us, it would be very costly for us to enforce our rights in an enforcement action, which would also divert funds and resources which otherwise could be used in our operations. Furthermore, third parties may also independently develop similar technology without breach of our proprietary rights.

In addition to our efforts to develop proprietary technology, historically we have also supplemented and commercialized our intellectual property through the grant and receipt of licenses. For example, Ibis has an exclusive worldwide sublicense to the proprietary beam scanning system developed and patented by a consultant to us during the development of the Ibis 1000. Our beam scanning system sublicense agreement also grants us certain rights to further sublicense the beam scanning system for certain applications other than oxygen implantation. Pursuant to these rights, we have entered into four non-exclusive sublicense agreements that permit the respective sub-licensees to manufacture, use and sell implantation machines incorporating the beam scanning system so long as such machines are not designed for the production of oxygen implanted wafers. Each sub-licensee has paid us a non-refundable option fee upon signing an agreement and an initial license fee when it exercised its option to use the licensed technology. In addition, each sub-licensee will pay a royalty fee with respect to each implantation machine manufactured, used or sold after its option fee and initial license fee has been applied. License fees received by us from sub-licenses are to be shared on a substantially equal basis with the licensor of the beam scanning system. As of December 31, 2004, Ibis had received approximately \$2.0 million in net license fees, after deducting amounts paid to the licensor.

Ibis also obtained in 1994 an exclusive license to technology that facilitates the presentation of wafers to ion beams developed by Superion Limited, a United Kingdom corporation. Through December 31, 2004, Ibis has paid \$0.6 million for license fees for implantation machines that have been manufactured by us. Under the terms of this agreement, Superion Limited has retained the right to utilize the technology for uses not involving oxygen implantation of silicon or other semiconductor materials. During 2001, this agreement was modified to incorporate i2000 implantation machines. Ibis also entered into a Sublicense Agreement during 2001 which gives our customer a royalty-bearing, non-exclusive license to utilize this technology for ion implantation machines, excluding oxygen implanters.

During 1999, we completed an agreement to license our standard and Advantox SIMOX-SOI wafer fabrication process to SUMCO. The agreement consisted of an initial royalty fee. Future royalties shall be payable based on a percentage of SUMCO's SIMOX-SOI wafers sold which are manufactured using the licensed process.

Furthermore, in 2000, we licensed from IBM the right to manufacture and sell SIMOX-SOI wafers, using IBM's proprietary MLD SIMOX process, to IBM and to all our other customers. Under the royalty-bearing license agreement, we were able to use IBM's process to produce MLD SIMOX-SOI wafers which we marketed as Advantox MLD. Advantox MLD wafers were broadly marketed to integrated circuit manufacturers looking to accelerate their SOI adoption process. Under the agreement we granted IBM rights to our patents utilized in the modified low dose, or MLD process. Although we believe that other SIMOX-SOI wafer processing methods exist and are being used today, our existing or potential equipment customers that intend to use the MLD process to manufacture SIMOX-SOI wafers would be required to license this technology directly from IBM. Two major silicon wafer manufacturers have already licensed this technology from IBM and others have developed their own SIMOX processes. No assurances can be given that the remaining equipment customers that intend to use the MLD process and IBM would come to terms acceptable to both parties in a timely manner, or at all. These MLD process license issues may effect the timing of placement of customer orders in the future if customers plan to license this technology.

Finally, during 2001 we licensed our Advantox 50 and 150 SIMOX wafer fabrication processes to Simgui. Ibis received the initial license fee from Simgui in January 2003, and the technology transfer took place in the first quarter ending March 31, 2003. License revenue of approximately \$0.5 million was recognized in that quarter.

Government Regulation

Ibis is subject to a variety of federal, state and local environmental regulations related to the storage, treatment, discharge or disposal of chemicals used in its operations and exposure of our personnel to occupational hazards. Although we believe that we have all permits necessary to conduct our business, the failure to comply with present or future regulations could result in fines being imposed on us, suspension of production, or a cessation of operations. Our future activities may result in our being subject to additional regulations. Such regulations could require us to acquire significant equipment or to incur other substantial expenses to comply with regulations. Any failure by us to control the use of, or to restrict adequately the discharge of, hazardous substances or to properly control other occupational hazards could subject us to substantial financial liabilities.

Certain technologies associated with Ibis' implanters are subject to export regulations administered by the U.S. Department of Commerce. Accordingly, Ibis may be required to secure U.S. export licenses with respect to sales of implanters or transfers of technologies to end users in certain foreign countries. There can be no assurance that if necessary, Ibis will be able to secure such licenses in a timely manner, or at all.

Manufacturing and Supplies

Ibis manufactures its oxygen implanters from standard components and from components manufactured in-house or by other vendors according to our design specifications. Most raw materials and components not produced by us are available from more than one supplier. However, certain raw materials, components and subassemblies are obtained from a limited group of suppliers. Semiconductor equipment is a growth industry and is very cyclical in nature, so if our suppliers experience an increase in demand from other semiconductor equipment manufacturers with much higher volumes than us, the lead-time and/or price for some of our components may increase. Although we have sought to reduce our dependence on these limited source suppliers and we have not experienced significant production delays due to unavailability or delay in procurement of component parts or raw materials to date, increased market demand for the materials supplied by, or disruption or termination of, certain of these sources could occur and such increased demand, disruptions, or termination could have a material adverse effect on our business and results of operations.

Employees

As of December 31, 2004, we employed 59 persons on a full-time basis. None of our employees are represented by a labor union and we believe our relations with our employees are good.

Risk Factors

The Commercial Market for SIMOX-SOI Technology is Still Developing and May Never Fully Develop.

The sources of our revenue have shifted from primarily research and development contracts and sales of SIMOX-SOI wafers for commercial applications to sales and support of oxygen implantation equipment. We are aware of only a few commercial manufacturers that are using SIMOX-SOI wafers in low volume production for a limited number of products. The performance advantages of SIMOX-SOI wafers may never be realized commercially and a commercial market for SIMOX-SOI wafers may never fully develop which in turn would adversely affect the sales of our oxygen implanters. The failure of major semiconductor manufacturers and /or major silicon wafer manufacturers to adopt SIMOX-SOI technology would adversely affect, and may prevent, the adoption of this technology by others.

We Have Significant Losses and May Never Be Able to Sustain Profitability.

We experienced net losses of \$14.1 million, \$21.4 million and \$10.9 million in 2002, 2003 and 2004, respectively. As of December 31, 2004, we had an accumulated deficit of \$72.8 million. Net losses may continue for the foreseeable future. Although we have had profitable quarterly operating results from time to time, we may not be able to achieve sustained profitability.

We May Need Substantial Additional Capital to Continue Operations in the Future.

We anticipate that our current available cash together with the anticipated sale of an implanter will enable us to maintain currently planned operations for at least the next twelve months from the date of this filing. However, this expectation is based on our current operating plan and general sales outlook, each of which may change rapidly. We intend to continue to invest in our research, development and manufacturing capabilities. The Company expects to continue to explore equity offerings and other forms of financing and anticipate that we may be required to raise additional capital in the future in order to finance future growth and our research and development programs. Changes in technology or sales growth beyond currently established capabilities may require further investment. As a result, we may need to raise substantial additional capital in the future. We have previously financed our working capital requirements through:

- equity financings, including warrant and option exercises,
- equipment lines of credit,
- a working capital line of credit,
- a term loan,
- sale-leaseback arrangements,
- collaborative relationships,
- wafer product and equipment sales, and
- government contracts.

There can be no assurance, however, that our actual needs will not exceed expectations or that we will be able to fund our operations on a long-term basis in the absence of other sources. There also can be no assurance that any additional required longer term financing will be available through additional bank borrowings, debt or equity offerings or otherwise, or that if such financing is available, that it will be available on terms acceptable

to us. If future financing is not available or is not available on a timely basis or on acceptable terms, we may not be able to fund our future needs, which would seriously harm our business and results of operations and our ability to continue as a going concern. In addition, if we raise additional funds through the sale of equity or convertible debt securities, the value of our common stock outstanding may be diluted. We may also have to issue securities that have rights, preferences and privileges senior to our common stock.

Currently, we rely on sales to a limited number of customers.

Ibis expects that we will continue to rely on a relatively small number of customers as sources of revenue in the foreseeable future. The loss of one or more of these major customers and our failure to obtain other sources of offsetting revenue would have a material adverse impact on our business and hinder our ability to continue as a going concern. In addition, any downturn in these customers' business or the industry in which these customers operate could result in a significant decrease in any sales of our implanters to these customers, which would have an adverse effect on our business.

We Rely Heavily on Sales to Certain Significant Customers, Which May Vary Significantly From Quarter to Quarter Causing Our Operating Results to Fluctuate.

We derive a large portion of our sales of wafer manufacturing equipment from certain significant customers. The following table sets forth, in thousands of dollars, the amount of revenue derived from our significant customers during the fiscal years ended December 31, 2002, 2003 and 2004, as well as the percent of our revenue represented by these customers' purchases (in thousands):

<u>Customer</u>	<u>2002</u>		<u>2003</u>		<u>2004</u>	
	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>
IBM	\$381	6%	\$8,564	91%	\$384	5%
Simgui	\$5,555	87%	\$526	6%	\$5	--
SEH	--	--	--	--	\$7,000	88%

Revenue from SEH in 2004 is for the sale of an i2000 oxygen implanter for approximately \$7.0 million. Revenue from IBM in 2003 resulted primarily from the sale of an i2000 oxygen implanter at a sale price of approximately \$8.0 million. Revenues from Simgui in 2002 represent the sale of an Ibis i1000 oxygen implanter and certain parts.

We Expect Our Quarterly Revenue and Operating Results to Fluctuate Significantly.

We anticipate that our revenue and operating results are likely to vary significantly from quarter to quarter in the foreseeable future, and it is likely that in future quarters our operating results may from time to time be below the expectations of public market analysts or investors. Our stock price has been volatile and if we fail to meet expectations of public market analysts or investors, the price of our common stock would likely decrease. Further, customers may cancel or revise orders at any time prior to delivery. These ordering patterns most likely will result in significant quarterly fluctuations in our revenue and operating results, and accordingly in our share price. In addition, because we have only sold a limited number of implanters to date on an irregular basis, the recognition of revenue from the sale of even one implanter is likely to result in a significant increase in the revenue for that quarter. A number of other factors, many of which are discussed in more detail in other risk factors, may also cause variations in our results of operations and share price, including:

- lack of orders;
- cancellations of orders and shipment delays and rescheduling;
- new product introductions, which often result in a mismatching of research and development expenses and recognition of revenue; and
- economic conditions and capital spending in the semiconductor industry and in other industries in which our customers operate.

A high percentage of our expenses are essentially fixed in the short term. As a result, if we experience delays in generating and recognizing revenue, our quarterly operating results are likely to be seriously harmed. Due to these and other factors, we believe that quarter-to-quarter comparisons of our operating results will not be meaningful. You should not rely on our results for one quarter as any indication of our future performance.

Competitors and Competing Technologies May Render Some or All of Our Products or Future Products Noncompetitive or Obsolete; Potential Write-down for Impaired or Obsolete Assets.

The semiconductor industry is highly competitive and has been characterized by rapid and significant technological advances. A number of established semiconductor and materials manufacturers, including certain of our customers, have expended significant resources in developing improved wafer substrates. Our competitors or others, many of which have substantially greater financial, technical and other resources than we do, may succeed in developing technologies and products that are equal to or more effective than any which we are developing, which could render our technology obsolete or noncompetitive. In addition to competition from other manufacturers of SOI wafers, we face competition from manufacturers using bulk silicon and epitaxial wafer technology, and compound materials technology such as silicon-germanium, gallium-arsenide and indium phosphide and SOI technology. Although we believe that SIMOX-SOI wafers offer integrated circuit performance advantages, semiconductor manufacturers may develop improvements to existing bulk silicon, epitaxial or strained silicon wafer technology, and competing compound materials or SOI technologies may be more successfully developed, which would eliminate or diminish the performance advantages of SIMOX-SOI wafers which in turn would diminish the demand for our oxygen implanters.

During the fiscal year ended December 31, 2004, we discontinued our wafer manufacturing business and incurred charges for severance and equipment disposition of \$2.1 million, contributing to the loss from discontinued operations of \$5.3 million. During the fiscal year ended December 31, 2003, we recognized an impairment loss of \$11.1 million for our 200 mm and smaller SIMOX wafer production line which has subsequently been recorded as part of the loss from discontinued operations in 2003 of \$17.6 million. (See Item 7 Managements Discussion and Analysis of Financial Condition and Results of Operations). In addition, if semiconductor manufacturers fail to adopt SIMOX technology during the current or subsequent process cycle (such cycles typically last two to three years), widespread adoption of SIMOX technology may never materialize, our technology may become obsolete and we may be required to recognize an additional material impairment loss in the future.

In addition, although we are aware of no other company manufacturing oxygen implant equipment, other major semiconductor implant equipment manufacturers could develop a less expensive oxygen implanter with superior technology. Our ability to compete with other manufacturers of semiconductor implanters, manufacturers of competing SOI wafers, as well as with bulk silicon, epitaxial, strained silicon and compound materials wafer manufacturers, will depend on numerous factors within and outside our control, including:

- the success and timing of our product introductions and those of our competitors;
- product distribution;
- customer support;
- sufficiency of funding available to us; and
- the price, quality and performance of competing products and technologies.

We Must Continually Improve Existing Products, Design and Sell New Products and Manage the Costs of Research and Development in Order to Compete Effectively.

The semiconductor industry is characterized by rapid technological change, evolving industry standards and continuous improvements in products and required customer specifications. Due to the constant changes in our markets, our future success depends on our ability to improve our manufacturing processes, improve existing products and develop new products. For example, our oxygen implanters must remain competitive on the basis of cost of ownership, process performance and evolving customer needs. To remain

competitive we must continually introduce oxygen implanters with higher capacity, better production yields and the ability to process larger wafer sizes.

The commercialization of new products involves, among other requirements, substantial expenditures in research and development, production and marketing. We may be unable to successfully design or manufacture these new products and may have difficulty penetrating new markets. Because it is generally not possible to predict the amount of time required and the costs involved in achieving certain research, development and engineering objectives, actual development costs may exceed budgeted amounts and estimated product development schedules may be extended. Our business may be materially and adversely affected if:

- we are unable to improve our existing products on a timely basis;
- our new products are not introduced on a timely basis;
- we incur budget overruns or delays in our research and development efforts; or
- our new products experience reliability or quality problems.

The Sales Cycle for Our Oxygen Implanter Equipment is Lengthy and Complex and We Have Only Received Limited Orders for Our Oxygen Implanter Equipment.

Our customers expend significant efforts in evaluating and qualifying our implanters before they place orders with us. Since we began selling implanters in 1996, we have only sold a total of eight Ibis 1000 oxygen implanters at an average sale price of approximately \$4.0 million each and two i2000 oxygen implanters (excluding the order received in January 2005) at a selling price between \$7.0 and \$8.0 million. The sales cycle typically goes from equipment demonstration, equipment specification negotiations, formal quotation, contract negotiations and receipt of order and could take up to one year or longer. In addition, our potential equipment customers that would like to use the MLD process, owned by IBM, to manufacture SIMOX-SOI wafers using our implanters would be required to license this technology directly from IBM. We believe two silicon wafer manufacturers have already licensed this technology from IBM and others have developed their own SIMOX processes. Our potential equipment customers may wish to secure this license prior to giving us an order for equipment and these negotiations between IBM and our customer are beyond our control and no assurances are given that our customers and IBM would come to terms acceptable to both parties in a timely manner, or at all. These MLD process license issues may effect the timing of placement of customer orders in the future if customers plan to license this technology. We do not expect to sell more than a limited number of implanters in the near future. The sale of one implanter would generally represent a substantial portion of our annual revenue. Accordingly, the delay in the receipt of orders, manufacture or delivery of even one unit or the modification, change or cancellation of any such order would have a material adverse effect on our quarterly and annual results of operations.

The Manufacturing and Customer Qualification Process for Our Implanters is Complex, Lengthy and Costly.

In the semiconductor industry customers regularly require equipment manufacturers to qualify the equipment at the customer's site. The time required to customer-qualify an implanter at a customer's site is very difficult to predict because the qualification process for each of our implanters is complex, lengthy and costly and varies depending on our customer's varying specifications. The manufacturing and qualification process for each implanter requires us to construct and customer qualify the machine at our premises, disassemble the machine for transportation, and reassemble and re-qualify it at the customer's premises. During this qualification period, we invest significant resources and dedicate substantial production and technical personnel to achieve acceptance of the implanter. A customer will not accept the implanter until it has successfully produced wafers to exact specifications at the customer's premises. Even very small differences in the customer's environment or initially imperceptible changes that may occur to the implanter during the transportation to and reassembly of the implanter at the customer's site can cause a large percentage of wafers produced by the implanter to be rejected, which would delay the acceptance of the implanter by the customer.

Historically, we have experienced delays in achieving customer acceptance. Delays or difficulties in our manufacturing and qualification process could increase manufacturing and warranty costs and adversely affect our relationships with our customers. In addition, because we do not recognize revenue on the sale of an implant until it is delivered and qualified by the customer, any delay in qualification would result in a delay in our ability to recognize revenue from the sale and receipt of final payment. Historically it has taken approximately nine to eighteen months to build, ship and obtain customer acceptance of our implanters.

Our Implanters and Associated Technology are Subject to Export Regulations, Which Could Prevent or Delay the Sale of Such Products in Foreign Countries.

Certain technologies associated with our implanters are subject to export regulations administered by the U.S. Department of Commerce. Accordingly, we may be required to secure U.S. export licenses with respect to sales of implanters or transfers of technologies to end users in certain foreign countries. This requirement could result in significant delays in, or the prevention of, sales of implanters or transfers of technology or other such technical data to customers in certain foreign countries. For example, the sale of an Ibis 1000 implanter and the corresponding transfer of technology to Simgui required an export license which took approximately one year to secure. There can be no assurance that if necessary, we will be able to secure such licenses in the future in a timely manner, or at all.

The Loss of Key Members of Our Scientific and Management Staff Could Delay and May Prevent the Achievement of Our Research, Development and Business Objectives.

Our Chief Executive Officer, Martin J. Reid, and other current officers and key members of our scientific staff are responsible for areas such as product development and improvements, and process improvements research, which are important to our specialized scientific business. The loss of, and failure to promptly replace, any member of this group could significantly delay and may prevent the achievement of our research, development and business objectives. While we have entered into an employment agreement with our Chief Executive Officer, under certain circumstances he may be able to terminate his employment with us. Furthermore, although our employees are subject to certain confidentiality and non-competition obligations, our key personnel may terminate their employment at any time and may become employed by a competitor. The current composition of Ibis management and of its board of directors is subject to change and should not be unduly relied upon.

We May Not Be Able to Successfully Produce Our Products on a Large-Scale.

We have limited manufacturing experience and have only manufactured limited quantities of oxygen implanters. To be successful, our products must be manufactured in commercial quantities, at acceptable costs. We may not be able to make the transition to high volume commercial production successfully. Future production in commercial quantities may create technical and financial challenges for us. Any difficulty or delay in constructing additional implanters, if needed, could have a material adverse effect on our business.

We May Not Be Able to Use All of Our Existing or Future Manufacturing Capacity at a Profitable Level.

At times we may have the capacity to produce more oxygen implantation machines than we have orders for at such times. During such idle time we would continue to be responsible for the fixed costs of our facility and maintaining personnel, which could have a material adverse effect on our business.

We May Not Successfully Form or Maintain Desirable Strategic Alliances.

We believe we will need to form or maintain alliances with strategic partners for the manufacturing, marketing and distribution of our products. We may enter into these strategic alliances to satisfy customer demand and to address possible customer concerns regarding our being a sole source supplier. The limited number of reliable sources of supply other than Ibis may adversely affect or delay the integration of SIMOX-SOI wafers in mainstream commercial applications. We may not be successful in maintaining alliances or in forming and maintaining other alliances, including satisfying our contractual obligations with our strategic

partners, and our partners may not devote adequate resources to manufacture, market and distribute these products successfully or may attempt to compete with us.

We May Have Difficulty Obtaining the Materials and Components Needed to Produce Our Products.

Ibis manufactures its oxygen implanters from standard components and from components manufactured in-house or by other vendors according to our design specifications. Most raw materials and components not produced by us are available from more than one supplier. However, certain raw materials, components and subassemblies are obtained from a limited group of suppliers. Semiconductor equipment is a growth industry and is very cyclical in nature, so if our suppliers experience an increase in demand from other semiconductor equipment manufacturers with much higher volumes than us, the lead-time and/or price for some of our components may increase. Although we have sought to reduce our dependence on these limited source suppliers and we have not experienced significant production delays due to unavailability or delay in procurement of component parts or raw materials to date, increased market demand for materials from, or disruption or termination of, certain of these sources could occur and such increased demand, disruptions, or termination could have a material adverse effect on our business and results of operations.

We May Not Be Able to Protect Our Patents and Proprietary Technology.

Our ability to compete effectively with other companies will depend, in part, on our ability to maintain the proprietary nature of our technology. Although we have been awarded or have filed applications for a number of patents in the U.S. and foreign countries, those patents may not provide meaningful protection, or pending patents may not be issued. Our competitors in both the U.S. and foreign countries, many of which have substantially greater resources and have made substantial investments in competing technologies, may have or may obtain patents that will prevent, limit or interfere with our ability to make and sell our products or intentionally infringe on our patents. The defense and prosecution of patent suits is both costly and time-consuming, even if the outcome is favorable to us. In addition, there is an inherent unpredictability regarding obtaining and enforcing patents. An adverse outcome in the defense of a patent suit could:

- subject us to significant liabilities to third parties,
- require disputed rights to be licensed from third parties, or
- require us to cease selling our products.

We also rely in large part on unpatented proprietary technology and others, including strategic partners, may independently develop the same or similar technology or otherwise obtain access to our proprietary technology. To protect our rights in these areas, we currently require all of our employees to enter into confidentiality agreements. However, these agreements may not provide meaningful protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use, misappropriation or disclosure of such trade secrets, know-how or other proprietary information.

Others may claim that our technology infringes on their proprietary rights. Any infringement claims, even if without merit, can be time consuming and expensive to defend and may divert management's attention and resources. If successful, they could also require us to enter into costly royalty or licensing agreements. A successful claim of product infringement against us and our inability to license the infringed or similar technology could adversely affect our business.

If We Do Not Comply With All Applicable Environmental Regulations, We Could be Subject to Fines and Other Sanctions.

We are subject to a variety of federal, state and local environmental regulations related to the storage, treatment, discharge or disposal of chemicals used in our operations and exposure of our personnel to occupational hazards. Although we believe that we have all permits necessary to conduct our business, the failure to comply with present or future regulations could result in fines being imposed on us, suspension of production or a cessation of operations. Our future activities may result in our being subject to additional

regulations. Such regulations could require us to acquire significant equipment or to incur other substantial expenses to comply with regulations. Our failure to control the use of, or to restrict adequately the discharge of, hazardous substances or properly control other occupational hazards could subject us to substantial financial liabilities.

Our Stock Price is Highly Volatile.

The market prices for securities of high tech companies have been volatile. This volatility has significantly affected the market prices for these securities for reasons frequently unrelated to the operating performance of the specific companies. These broad market fluctuations may adversely affect the market price of our common stock. The market price for our common stock has fluctuated significantly. Since January 1, 1999, our stock price has fluctuated from a high of \$135.00 to a low of \$2.12. It is likely that the market price of our stock will continue to fluctuate in the future. Events or factors that may have a significant impact on our business and on the market price of our common stock include the following:

- quarterly fluctuations in operating results,
- difficulty in forecasting future results,
- announcements by us or our present or potential competitors,
- technological innovations or new commercial products or services by us or our competitors,
- the timing of receipt of orders from major customers,
- product mix,
- product obsolescence,
- shifts in customer demand,
- our ability to manufacture and ship products on a cost-effective and timely basis,
- market acceptance of new and enhanced versions of our implanters,
- the evolving and unpredictable nature of the markets for the products incorporating SIMOX-SOI wafers,
- the amount of research and development expenses associated with new or enhanced products or implanters
- the cyclical nature of the semiconductor industry, and
- general market conditions.

Securities Litigation Could Result in Substantial Cost and Divert the Attention of Key Personnel, Which Could Seriously Harm Our Business.

Five class action securities lawsuits have been filed in the United States District Court in the District of Massachusetts against Ibis and its President and CEO: Martin Smolowitz v. Ibis Technology Corporation., et al., Civ. No. 03-12613 (RCL) (D. Mass.); Fred Den v. Ibis Technology Corporation., et al., Civ. No. 04-10060 (RCL) (D. Mass.); Weinstein v. Ibis Technology Corporation., et al., Civ. No. 04-10088 (RCL) (D. Mass.); George Harrison v. Ibis Technology Corporation., et al., Civ. No. 04-10286 (RCL) (D. Mass.); and Eleanor Pitzer v. Ibis Technology Corporation., et al, Civ. No. 04-10446 (RCL) (D. Mass.). On June 4, 2004, the Court entered an order consolidating these actions under the caption In re Ibis Technology Securities Litigation, C.A. 04-10446 RCL. On July 6, 2004, a consolidated amended class action complaint was filed which alleges, among other things, that the Company violated federal securities laws by allegedly making misstatements to the investing public relating to demand for certain Ibis products and intellectual property issues relating to the sale of the i2000 oxygen implanter. The plaintiffs are seeking unspecified damages. On August 5, 2004, we filed a motion to dismiss the consolidated amended complaint on the grounds, among others, that it failed to state a claim on which the relief could be granted. That motion now has been fully briefed, and we are awaiting ruling on it from the Court. While we believe that the allegations are without merit, and we intend to vigorously defend against the suits, there can be no guarantee as to how they ultimately will be resolved.

In addition, Ibis has been named as a nominal defendant in a shareholder derivative action filed in February 2004 against certain of its directors and officers: Louis F. Matheson, Jr. v. Martin J. Reid et al., Civ. Act. No. 04-10341 (RCL). The complaint alleges, among other things, that the alleged conduct challenged in the securities cases pending against Ibis in Massachusetts (described above) constitutes a breach of the defendants' fiduciary duties to Ibis. The complaint seeks unspecified money damages and

other relief ostensibly on behalf of Ibis. On June 4, 2004, the Court entered an order staying this matter pending the entry of a final order on any motion filed by the Company to dismiss the consolidated class action complaint referenced above.

Litigation may be time-consuming, expensive and disruptive to normal business operations, and the outcome of litigation is difficult to predict. An unfavorable resolution of these litigation matters could have a material adverse effect on our business, results of operations and financial condition.

Future Issuances of Preferred Stock May Diminish the Rights of Our Common Stockholders.

Our board of directors has the authority to approve the issue of up to 2.0 million shares of preferred stock and to determine the price, rights, privileges and other terms of these shares. The board of directors may exercise this authority without the approval of the stockholders. The rights of the holders of common stock may be adversely affected by the rights of the holders of any preferred stock that may be issued in the future.

Anti-takeover provisions in our charter and bylaws and provisions of Massachusetts law could make a third-party acquisition of us difficult.

Our restated articles of organization, as amended, and restated bylaws and the Massachusetts Business Corporation Law contain certain provisions that may make a third-party acquisition of us difficult, including:

- a classified board of directors, with three classes of directors each serving a staggered three-year term;
- the ability of the board of directors to issue preferred stock; and
- a 75% super-majority shareholder vote to amend certain provisions of our articles of organization and bylaws.

Limitations on effectiveness of controls.

The Company's management, including the Chief Executive Officer and President and the Chief Financial Officer, does not expect that our disclosure controls or our internal controls will prevent all errors and intentional misrepresentations. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within the Company have been detected.

These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and no assurance can be given that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or intentional conduct may occur and not be detected.

Item 2. DESCRIPTION OF PROPERTY

Ibis' corporate office and manufacturing facilities are located at two leased facilities in Danvers, Massachusetts. Previously our business segments were divided between these two facilities, with implantation equipment design and manufacture conducted in one of the facilities and SIMOX wafer production conducted in the other facility. In connection with our implantation equipment design and manufacturing facility we leased approximately 40,000 square feet which includes 20,000 square feet for future expansion. Additionally in connection with our SIMOX wafer research facility we leased approximately 32,000 square feet which includes a modernized cleanroom that contain implanters, metrology equipment, cleaning equipment and an implantation equipment manufacturing and service area. The leases expire on May 31, 2005 and December 31, 2006, respectively, and contain an option to renew for five years. Due to our recent exit of the wafer manufacturing business in mid-2004 however, we plan to consolidate our operations into one facility during May 2005. Consequently, we will not be renewing the lease ended May 31, 2005, which will effectively reduce our overall leased space by 40,000 square feet leaving 32,000 square feet.

Item 3. LEGAL PROCEEDINGS

Five class action securities lawsuits have been filed in the United States District Court in the District of Massachusetts against Ibis and its President and CEO: Martin Smolowitz v. Ibis Technology Corporation., et al., Civ. No. 03-12613 (RCL) (D. Mass.); Fred Den v. Ibis Technology Corporation., et al., Civ. No. 04-10060 (RCL) (D. Mass.); Weinstein v. Ibis Technology Corporation., et al., Civ. No. 04-10088 (RCL) (D. Mass.); George Harrison v. Ibis Technology Corporation., et al., Civ. No. 04-10286 (RCL) (D. Mass.); and Eleanor Pitzer v. Ibis Technology Corporation., et al, Civ. No. 04-10446 (RCL) (D. Mass.). On June 4, 2004, the Court entered an order consolidating these actions under the caption *In re Ibis Technology Securities Litigation*, C.A. 04-10446 RCL. On July 6, 2004, a consolidated amended class action complaint was filed which alleges, among other things, that the Company violated federal securities laws by allegedly making misstatements to the investing public relating to demand for certain Ibis products and intellectual property issues relating to the sale of the i2000 oxygen implanter. The plaintiffs are seeking unspecified damages. On August 5, 2004, we filed a motion to dismiss the consolidated amended complaint on the grounds, among others, that it failed to state a claim on which the relief could be granted. That motion now has been fully briefed and is awaiting a decision by the Court. While we believe that the allegations are without merit, and we intend to vigorously defend against the suits, there can be no guarantee as to how they ultimately will be resolved.

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Litigation may be time-consuming, expensive and disruptive to normal business operations, and the outcome of litigation is difficult to predict. An unfavorable resolution of these litigation matters could have a material adverse effect on our business, results of operations and financial condition.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to stockholders during the fourth quarter of the year ended December 31, 2004.

PART II

Item 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Market Information

Ibis' Common Stock began trading on May 20, 1994 on the Nasdaq SmallCap Market and on the Boston Stock Exchange. Prior to May 20, 1994, there was no public market for the Common Stock or any other securities of Ibis. On April 4, 1996, Ibis commenced trading on the Nasdaq National Market. Our Common Stock is traded under the symbol "IBIS." The following table sets forth, for the periods so indicated the high and low sale prices for the Common Stock as reported by the Nasdaq National Market.

	<u>Common Stock</u>	
	<u>High</u>	<u>Low</u>
2003:		
First Quarter	\$ 6.50	\$ 3.92
Second Quarter	\$ 8.68	\$ 3.99
Third Quarter	\$ 13.17	\$ 7.67
Fourth Quarter	\$ 17.90	\$ 9.90
2004:		
First Quarter	\$ 16.15	\$ 10.02
Second Quarter	\$ 12.50	\$ 5.12
Third Quarter	\$ 6.15	\$ 3.11
Fourth Quarter	\$ 5.60	\$ 2.12

Stockholders

As of February 28, 2005, there were approximately 142 stockholders of record of the 10,719,595 outstanding shares of Common Stock and approximately 6,700 beneficial owners of the Common Stock.

Dividends

Ibis has never declared or paid any dividends and does not anticipate paying such dividends on its Common Stock in the foreseeable future. Ibis currently intends to retain any future earnings for use in its business. The payment of any future dividends will be determined by the Board of Directors in light of conditions then existing, including our financial condition and requirements, future prospects, restrictions in financing agreements, business conditions and other factors deemed relevant by the Board of Directors.

Item 6. SELECTED FINANCIAL DATA

The selected financial data presented below under the captions "Statement of Operations Data" and "Balance Sheet Data" for, and as of the end of each of the years in the five-year period ended December 31, 2004, are derived from the financial statements of Ibis, which have been audited by KPMG LLP, independent registered public accounting firm. The audited balance sheets at December 31, 2004 and 2003 and the related statements of operations, stockholders equity and cash flows for each of the years in the three-year period ended December 31, 2004 and the independent registered public accounting firm's report thereon, are included elsewhere in this Annual Report on Form 10-K. The data set forth below should be read in conjunction with Ibis' financial statements, the related notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report on Form 10-K. The historical results are not necessarily indicative of the operating results to be expected in the future.

	<u>2000</u>	<u>Years Ended December 31,</u>			<u>2004</u>
		<u>2001</u>	<u>2002</u>	<u>2003</u>	
	<u>(In thousands, except for per share data)</u>				
Statement of Operations Data:					
Contract and other revenue	\$ 533	\$ 518	\$ 283	\$ 660	\$ 391
Equipment revenue	<u>5,769</u>	<u>1,525</u>	<u>6,103</u>	<u>8,782</u>	<u>7,535</u>
Total revenue (2)	<u>6,302</u>	<u>2,043</u>	<u>6,386</u>	<u>9,442</u>	<u>7,926</u>
Cost of contract and other revenue	388	376	115	45	15
Cost of equipment revenue	<u>3,482</u>	<u>1,502</u>	<u>3,868</u>	<u>4,331</u>	<u>4,722</u>
Total cost of revenue	<u>3,870</u>	<u>1,878</u>	<u>3,983</u>	<u>4,376</u>	<u>4,737</u>
Gross profit.....	<u>2,432</u>	<u>165</u>	<u>2,403</u>	<u>5,066</u>	<u>3,189</u>
Operating expenses:					
General and administrative	1,998	2,273	2,174	2,337	2,221
Marketing and selling	1,640	1,813	1,510	1,236	1,521
Research and development	<u>4,587</u>	<u>5,119</u>	<u>6,258</u>	<u>5,381</u>	<u>5,329</u>
Total operating expenses	<u>8,225</u>	<u>9,205</u>	<u>9,942</u>	<u>8,954</u>	<u>9,071</u>
Loss from operations	<u>(5,793)</u>	<u>(9,040)</u>	<u>(7,539)</u>	<u>(3,888)</u>	<u>(5,882)</u>
Total other income.....	1,943	2,265	255	27	242
Income (loss) before income taxes	(3,850)	(6,775)	(7,284)	(3,861)	(5,640)
Income tax expense (benefit).....	<u>1</u>	<u>1</u>	<u>1</u>	<u>(8)</u>	<u>1</u>
Loss from continuing operations	<u>(3,851)</u>	<u>(6,776)</u>	<u>(7,285)</u>	<u>(3,853)</u>	<u>(5,641)</u>
Discontinued operations: (2)					
Gain (loss) from discontinued operations	2,349	(2,819)	(6,811)	(17,597)	(3,178)
Loss on disposal	--	--	--	--	(2,099)
Income (loss) from discontinued operations	<u>2,349</u>	<u>(2,819)</u>	<u>(6,811)</u>	<u>(17,597)</u>	<u>(5,277)</u>
Net loss	<u>\$ (1,502)</u>	<u>\$ (9,595)</u>	<u>\$ (14,096)</u>	<u>\$ (21,450)</u>	<u>\$ (10,919)</u>
Loss from continuing operations per common share (1).....	<u>\$ (0.47)</u>	<u>\$ (0.81)</u>	<u>\$ (0.79)</u>	<u>\$ (0.40)</u>	<u>\$ (0.53)</u>
Net loss per common share (1).....	<u>\$ (0.18)</u>	<u>\$ (1.15)</u>	<u>\$ (1.53)</u>	<u>\$ (2.21)</u>	<u>\$ (1.02)</u>
Weighted average common shares outstanding.....	8,286	8,378	9,208	9,728	10,666

	<u>As of December 31,</u>				
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
(In thousands)					
Balance Sheet Data:					
Working capital	\$ 32,585	\$ 11,232	\$ 5,551	\$ 12,607	\$ 12,415
Total assets	56,299	54,920	51,699	35,343	22,283
Long-term debt, less current portion.....	18	2,718	1,184	--	--
Total liabilities.....	6,780	14,560	12,944	4,226	1,863
Stockholders' equity.....	49,519	40,360	38,755	31,117	20,420

(1) Computed on the basis described for net earnings (loss) per common share in Note 2(g) of Notes to Financial Statements.

(2) Historically, much of the Company's revenue was derived from research and development contracts and sales of wafers for military and commercial applications. In mid-2004, we discontinued the wafer manufacturing portion of our business in order to focus exclusively on our equipment business. We will maintain a research and development effort relating to wafers for our equipment improvement programs. This revision to our business strategy could materially affect the comparability of the information reflected in the above selected financial data.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the Financial Statements of Ibis (including Notes thereto) and Selected Financial Data included elsewhere in this Annual Report on Form 10-K.

OVERVIEW

Ibis Technology Corporation ("Ibis") was formed in October 1987 and commenced operations in January 1988. Ibis' initial activities consisted of producing and selling SIMOX-SOI wafers and conducting research and development activities. This effort led to the development of proprietary oxygen implanters, the Ibis 1000, which we began selling in 1996, the next generation implanter, the i2000™, which we began selling in 2002, and also to other proprietary process technology.

Initially, much of our revenue was derived from research and development contracts and sales of wafers for military applications. Over the years, the Company decided to focus its business operations and sales strategy on the manufacture and sale of our implanter equipment products and de-emphasized the sale of wafers given that, among other things, we believed that the wafer manufacturing companies were in the best position to manufacture SIMOX-SOI wafers using our implanter equipment in light of their expertise and operating efficiencies. As we announced on July 21, 2004, we have exited the wafer manufacturing business. Our wafer business had been highly concentrated on providing wafers for the Company's largest customer, and was characterized by very volatile production volumes and costs associated with periodic changes and continuing improvements to the process. Our major wafer customer had tended to order fluctuating quantities of wafers on an irregular basis. This customer also could revise or cancel orders at any time prior to delivery. This meant that this customer, who had accounted for a significant portion of our net revenue in the past, could have reduced or decided not to place any orders in the succeeding quarter or quarters. Furthermore, most of our other wafer customers were sampling SIMOX wafers or are in the process of developing prototype products and have also tended to order small quantities of wafers on an irregular basis. These customers could also revise or cancel orders at any time prior to delivery. As previously announced, because of this unpredictability, and because it was also likely that additional capital investments would have to be made to keep our wafer manufacturing process up to date (among other factors), we decided to discontinue the wafer manufacturing portion of the business in 2004 and to focus exclusively on our equipment business. We will maintain a research and development effort relating to wafers for our equipment improvement programs. Ibis has experienced quarterly and annual fluctuations in revenue and results of operations due to various factors, including (i) the timing of receipt of equipment orders, and (ii) dependence on a limited number of customers.

We believe that a migration of SOI wafer manufacturing into the major silicon wafer suppliers is taking place. We reach this conclusion for a number of reasons. First, we believe that tremendous price pressure exists on commodity type products, such as silicon wafers, and this pressure is already eroding price expectations of SOI wafers. Because the starting wafer represents a significant component of the SOI wafer cost, we believe that silicon wafer manufacturers should have a natural cost structure advantage leading to a higher gross margin, and therefore should be able to manage such price pressure better than stand-alone SOI producers that do not also produce the silicon wafer itself. Second, we expect that the price pressure will encourage silicon wafer manufacturers to seek out higher margin products, like SOI wafers, to increase their margins. Third, we believe that silicon wafer manufacturers have traditionally developed proprietary intellectual property in silicon materials science, which can be applied to designing optimal starting wafers for SOI production. We believe that this should give them an advantage in both minimizing wafer cost and maximizing SOI wafer quality and yield. Fourth, our experience suggests that silicon wafer manufacturers already have a well-developed infrastructure for the manufacturing, sale and marketing of large volumes of substrates. Lastly, we believe that there is greater efficiency in producing the SOI wafer as part of the wafer manufacturers existing product flow, specifically avoiding the need to repackage, re-clean, re-inspect and reship substrates twice, once as starting silicon wafers, and a second time as SOI wafers. Therefore, as a result of these trends, we expect our ultimate customers will be drawn from these silicon wafer manufacturers and we

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

plan to focus a majority of our technical and marketing resources on the sale of implanters to the leading silicon wafer manufacturers and our key customers in the semiconductor industry who we believe are the leaders in the adoption of SOI technology. We expect that implanter sales to chipmakers should be minimal, and that these sales will be focused on SOI processes that the chipmaker wishes to keep proprietary, such as selective (or patterned) SIMOX, or other specialty substrates.

Our fundamental SIMOX-SOI technology has been developed, refined, and tested over the last dozen years. In 2002, we introduced the current generation of SIMOX-SOI technology, which included our second-generation oxygen implanter (i2000™), and the MLD wafer process which was licensed to us by IBM. We believe that the i2000's flexibility, automation and operator-friendly controls allow this tool to produce a wide range of SIMOX-SOI wafer products using a range of manufacturing processes, including Advantox® MLD and Advantox MLD-UT wafers. We also believe the ability of the i2000 implanter to produce eight and twelve-inch (or 200 and 300 mm) SIMOX-SOI wafers coupled with the MLD process positions us to capitalize on the growing SOI market. In 1999, we commenced a program to design and develop the i2000, introduced it in March 2002 and began shipping 300 mm wafers implanted from this machine shortly thereafter. Customers who purchase the i2000 can utilize more than one SIMOX wafer manufacturing process on the implanter including the IBM MLD process, when licensed, as well as other SIMOX-SOI wafer manufacturing processes that do not require the IBM license.

Because we have sold only a limited number of implanters to date on an irregular basis, the recognition of revenue from the sale of even one implanter is likely to result in a significant increase in the revenue during that quarter. We recognize implanter revenue in accordance with SAB 104, which includes, among other criteria, the shipment and factory acceptance of the implanter at the customer's location. As a result, deferral of revenue will be recorded on our balance sheet until the Company is able to meet these criteria.

In January 2005, we announced the booking (i.e. receipt) of an order for one Ibis i2000 SIMOX implanter from SUMCO, a leading international silicon wafer manufacturer. Although no assurances can be given, we expect to ship this system in the second quarter of 2005 depending on completion of the tool and customer acceptance of the tool at our facility. Revenue recognition for this implanter will be based on final customer acceptance at their facility, the timing of which may vary depending on a number of factors, including performance of the tool.

In July 2004, the Company announced its intention to discontinue its wafer manufacturing business. The Company's final disposal plans relative to the closure of the wafer manufacturing operation resulted in a loss from disposal of inventory and certain production assets from discontinued operations of \$2.1 million. This loss combined with the negative margin incurred by the wafer manufacturing business in 2004 of \$3.2 million resulted in the total loss from discontinued operations of \$5.3 million.

Wafer product sales, as well as wafer revenue reported in previous quarters, are reported net of associated costs, as loss from discontinued operations on our income statement. Current quarter and all previously reported quarterly and year to date financial information described on the financial statements have been adjusted and reported accordingly. The Company believes that its decision to discontinue the wafer business permit broader strategic collaboration efforts between Ibis and the wafer manufacturers. The Company also believes elimination of wafer manufacturing and associated sales at Ibis, potentially allows our primary customers the opportunity to supply additional wafer volume with better quality and at lower cost to their end customers. We believe this has the potential to lead to the placement of additional SIMOX SOI equipment orders, and to accelerate customer acceptance of our technology.

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During February 2004, we announced the booking (i.e. receipt) of an order for one Ibis i2000 SIMOX implanter, with an option to purchase a second i2000, from a leading international silicon wafer manufacturer. We subsequently achieved customer acceptance of this implanter at our facility and in the second quarter of 2004 this system was shipped to the customer's facility. Revenue for this implanter order was recognized in the third quarter of 2004, based on the final acceptance by the customer.

During the fourth quarter ended December 31, 2003, a number of unexpected events occurred that impacted our 200 mm and smaller wafer size production line including the line's projected cash flow generation and our projected utilization of the assets within our revised plans. Based on these events and their impact on current and future projected cash flows, and our subsequent impairment analysis under the provisions of SFAS No. 144, Accounting for Impairment or Disposal of Long-Lived Assets, resulted in an impairment charge of \$11.1 million for our 200 mm and smaller SIMOX wafer production line, which was principally comprised of Ibis 1000 implanters and associated machinery and equipment not expected to be utilized or sold. The remaining carrying amount of assets for this line was charged to the loss from discontinued operations in the third quarter of 2004.

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that have a significant impact on the results we report in our financial statements. Some of our accounting policies require us to make difficult and subjective judgments, often as a result of the need to make estimates on matters that are inherently uncertain. Our most critical accounting policies include: revenue recognition, inventory valuation and reserves, accounts receivable reserves and the assessment of long-lived asset impairment. Actual results may differ from these estimates under different assumptions or conditions. Below, we discuss these policies further, as well as the estimates and judgments involved.

Revenue Recognition. We recognize revenue from wafer product sales, equipment sales and the sales of spare parts when all of the following criteria have been met: (1) evidence exists that the customer is bound to the transaction; (2) the product has been delivered to the customer and, when applicable, the product has been installed and accepted by the customer; (3) the sales price to the customer has been fixed or is determinable; and (4) collectibility of the sale price is reasonably assured. We recognize revenue from implanter sales upon acceptance at the customer's site. Provisions for estimated sales returns and allowances are made at the time the products are sold. Revenue derived from contracts and services is recognized upon performance. Significant management judgments and estimates must be made and used in connection with revenue recognized in any period. Management analyzes various factors, including a review of specific transactions, historical experience, credit worthiness of customers and current market and economic conditions. Changes in judgments based upon these factors could impact the timing and amount of revenue and cost recognized.

Inventory Valuation and Reserves. Our policy for the valuation of inventory, including the determination of obsolete or excess inventory, requires us to forecast the future demand for our products within specific time horizons, generally twelve months or less. If our forecasted demand for specific products is greater than actual demand and we fail to reduce manufacturing output accordingly, we could be required to record additional inventory reserves, which would have a negative impact on our gross margin. We reserve for obsolescence when engineering changes or other technological advances indicate that obsolescence has occurred. With the discontinuance of the wafer manufacturing business and the write-off of all inventory, the focus is now on the reserves required for equipment part inventory.

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Accounts Receivable Reserves. Accounts receivable are reduced by an allowance for amounts that may become uncollectible in the future. The estimated allowance for uncollectible amounts is based primarily on a specific analysis of accounts in the receivable portfolio and a general reserve based on the aging of receivables and historical write-off experience. While management believes the allowance to be adequate, if the financial condition of our customers were to deteriorate, resulting in impairment of their ability to make payments, additional allowances may be required and could materially impact our financial position and results of operations.

Valuation of Long-Lived Assets. Ibis reviews the valuation of long-lived assets, including property and equipment and licenses, under the provisions of SFAS No. 144, Accounting for Impairment or Disposal of Long-Lived Assets. Management is required to assess the recoverability of its long-lived assets whenever events and circumstances indicate that the carrying value may not be recoverable. Based on current conditions, factors we consider important and that could trigger an impairment review include the following:

- Significant underperformance relative to expected historical or projected future operating results;
- Significant changes in the manner of our use of the acquired assets or the strategy of our overall business;
- Significant negative industry or economic trends;
- Significant decline in our stock price for a sustained period; and
- Our market capitalization relative to book value.

In accordance with SFAS No. 144, when we determine that the carrying value of applicable long-lived assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we evaluate whether the carrying amount of the asset exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of that asset. If such a circumstance exists, we would measure an impairment loss to the extent the carrying amount of the particular long-lived asset or group exceeds its fair value. We would determine the fair value based on a projected discounted cash flow method using a discount rate determined by our management to be commensurate with the risk inherent in our current business model. We adopted SFAS No. 144 during the first quarter of 2002 and during the fourth quarter of 2003 we recognized an impairment charge of \$11.1 million for our 200 mm and smaller SIMOX wafer production line. The remaining loss on disposal for this line, along with other assets associated with wafer manufacturing, were charged to the loss from discontinued operations in 2004.

Results of Operations

Fiscal Year Ended December 31, 2004 Compared to Fiscal Year Ended December 31, 2003

Contract and Other Revenue. Contract and other revenue for the fiscal year ended December 31, 2004 was \$0.4 million compared to \$0.7 million for the fiscal year ended December 31, 2003, a decrease of \$0.3 million, or 41%. This decrease is attributable to a reduction of revenue recognized from the transfer of wafer technology to a customer, pursuant to a license transfer agreement in the year ended December 31, 2003. This was offset by an increase in royalty fees related to equipment technology in the year ended December 31, 2004.

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Equipment Revenue. Equipment revenue represents revenue recognized from the sale of implanters, spare parts and field service revenue. Equipment revenue decreased to \$7.5 million for the fiscal year ended December 31, 2004 from \$8.8 million for the fiscal year ended December 31, 2003, a decrease of \$1.3 million, or 14%. Equipment revenue in 2003 included approximately \$8.0 million from the i2000 implanter we shipped to our largest customer late in 2002 and which was accepted in the fiscal year ended December 31, 2003. The implanter revenue recognized in the fiscal year ended December 31, 2004 was for \$7.0 million. Field service revenue accounted for \$0.4 million, or 5% of equipment revenue for the fiscal year ended December 31, 2004 as compared to \$0.3 million, or 3% of equipment revenue for the fiscal year ended December 31, 2003. Sales of spare parts accounted for \$0.2 million, or 2% of equipment revenue for the fiscal year ended December 31, 2004 as compared to \$0.5 million, or 6% of equipment revenue, for the fiscal year ended December 31, 2003. Sales of spare parts fluctuate depending on customer demand and when the warranties expire on individual pieces of equipment. Warranty expense is calculated on our anticipated replacement costs for equipment accepted by our customers over a one or two year contract period.

Total Sales and Revenue. Total sales and revenue for the fiscal year ended December 31, 2004 was \$7.9 million, a decrease of \$1.5 million, or 16%, from \$9.4 million for the fiscal year ended December 31, 2003, as described above.

Total Cost of Sales and Revenue. Cost of contract and other revenue consists of labor and materials expended during the twelve month period. Cost of contract and other revenue for the fiscal year ended December 31, 2004 was \$15 thousand, as compared to \$45 thousand for the fiscal year ended December 31, 2003 a decrease of \$30 thousand, or 66%. This decrease is attributable to a reduction in labor costs associated with license revenue compared to the prior year.

Cost of equipment revenue represents the cost of equipment, the cost for spare parts, and the cost of labor incurred for field service. Cost of equipment revenue for the fiscal year ended December 31, 2004 was \$4.7 million, as compared to \$4.3 million for the fiscal year ended December 31, 2003, an increase of \$0.4 million, or 9%. This increase is due to an under absorption of manufacturing cost of \$0.5 million and the increase in inventory reserves for equipment parts of \$0.2 million. This was offset by decreased costs associated with the implanter sold in the fiscal year ended December 31, 2004 in the amount of \$0.4 million and the reduction in sales volume of equipment parts.

The total cost of sales and revenue for the fiscal year ended December 31, 2004 was \$4.7 million, as compared to \$4.3 million for the fiscal year ended December 31, 2003, an increase of \$0.4 million, or 8%. The gross margin for all sales was 40% for the fiscal year ended December 31, 2004, as compared to a gross margin of 54% for the fiscal year ended December 31, 2003. This decrease in the gross margin for all sales is attributable to an approximate gross margin of 55% achieved on the i2000 implanter sale, recognized in the fiscal year ended December 31, 2003 as compared to the approximate gross margin of 50% for the i2000 implanter recognized in the fiscal year ended December 31, 2004 as well as the unabsorbed manufacturing costs and the increase in inventory reserves.

General and Administrative Expenses. General and administrative expenses for the fiscal year ended December 31, 2004 were \$2.2 million (28% of total revenue) as compared to \$2.3 million (25% of total revenue) for the fiscal year ended December 31, 2003, a decrease of \$0.1 million, or 5%. This is due to decreased professional services of \$0.1 million, decreased premiums on Director's & Officers liability insurance of \$0.1 million and decreased payroll and payroll related expenses of \$0.1 million which were offset by increased securities compliance costs of \$0.1 million, increased computer expenses of \$45 thousand, and increased service charges of \$33 thousand for the letter of credit related to the sale of the i2000 implanter.

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Marketing and Selling Expenses. Marketing and selling expenses for the fiscal year ended December 31, 2004 were \$1.5 million (19% of total revenue) as compared to \$1.2 million (13% of total revenue) for the fiscal year ended December 31, 2003, an increase of \$0.3 million, or 23%. The increase in marketing and selling expenses is a result of increased subcontractor costs associated with our service group in Japan of \$0.2 million and increased salaries of \$0.1 million, which were partially offset by a reduction in public relations expense of \$43 thousand.

Research and Development Expenses. Internally funded research and development expenses decreased by \$0.1 million, or 1% to \$5.3 million (67% of total revenue) for the fiscal year ended December 31, 2004 from \$5.4 million (57% of total revenue) for the fiscal year ended December 31, 2003. This decrease is due to reduced payroll and payroll related expenses of \$0.4 million, reduced joint development project costs of \$0.4 million, reduced depreciation expense of \$0.5 million, reduced consulting and subcontractor costs of \$0.1 million, reduced project material of \$0.4 million and reductions in other miscellaneous expenses. This was offset by the wafer research and development costs of \$1.9 million that were previously part of the cost of sales but are now supporting equipment development.

Other Income. Total other income for the fiscal year ended December 31, 2004 was \$0.2 million as compared to \$28 thousand for the fiscal year ended December 31, 2003, an increase of \$0.2 million, or 780%. The increase in total other income is attributable to the expiration of a wafer volume option of \$0.2 million that was associated with an asset obtained by the wafer production group from a wafer customer. This volume option was to be used on orders received over a one-year period. Since the time expired, and no orders were received, the Company reduced its liability and recognized the amount in income, as no further obligation exists. The increase in other income was reduced by an increase in miscellaneous expenses. Interest income also increased by \$30 thousand for the fiscal year ended December 31, 2004 due to interest rates and increased cash balances. Interest expense decreased by \$24 thousand for the fiscal year ended December 31, 2004 due to the decrease in wafer sales that involved a financing arrangement entered into with the customer during the second quarter of 2002.

Discontinued Operations. Discontinued operations generated sales of \$4.0 million and \$9.0 million in 2004 and 2003, respectively, and operating losses of \$3.2 million and \$17.6 million respectively. The 2003 operating loss related to discontinued operations includes \$11.1 million impairment charge related to wafer manufacturing inventory and fixed assets. The loss on disposal in 2004 was \$2.1 million and consisted of \$0.9 million in net fixed asset impairments, \$1.2 million in inventory impairments, and employee severance pay of \$78 thousand.

Fiscal Year Ended December 31, 2003 Compared to Fiscal Year Ended December 31, 2002

Contract and Other Revenue. Contract and other revenue for the fiscal year ended December 31, 2003 was \$0.7 million compared to \$0.3 million for the fiscal year ended December 31, 2002, an increase of \$0.4 million or 133%. This increase is attributable to revenue recognized from the transfer of wafer technology to a customer pursuant to a license agreement. Royalty fees on licensed equipment technology also increased but these were offset by a decrease in government contract work.

Equipment Revenue. Equipment revenue increased to \$8.8 million for the fiscal year ended December 31, 2003 from \$6.1 million for the fiscal year ended December 31, 2002, an increase of \$2.7 million, or 44%. Equipment revenue in 2003 included approximately \$8.0 million from the sale of an i2000

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implanter compared to the fiscal year ended December 31, 2002 which included approximately \$5.0 million from the sale of an Ibis 1000 implanter to a customer in China. Field service revenue accounted for \$0.3 million, or 3% of equipment revenue for the fiscal year ended December 31, 2003 as compared to \$0.3 million, or 5% of equipment revenue for the fiscal year ended December 31, 2002. Sales of spare parts accounted for \$0.5 million, or 6% of equipment revenue for the fiscal year ended December 31, 2003 as compared to \$0.8 million, or 13% of equipment revenue for the fiscal year ended December 31, 2002. Sales of spare parts fluctuate depending on the number of tools sold and when the associated warranty expires.

Total Sales and Revenue. Total sales and revenue for the fiscal year ended December 31, 2003 was \$9.4 million, an increase of \$3.0 million, or 48%, from \$6.4 million for the fiscal year ended December 31, 2002.

Total Cost of Sales and Revenue. Cost of contract and other revenue for the fiscal year ended December 31, 2003 was \$45 thousand, as compared to \$0.1 million for the fiscal year ended December 31, 2002, a decrease of \$71 thousand, or 61%, due to a decrease in work performed on government contracts.

Cost of equipment revenue for the fiscal year ended December 31, 2003 was \$4.3 million, as compared to \$3.9 million for the fiscal year ended December 31, 2002, an increase of \$0.4 million, or 12%. This increase is due to higher costs recognized on the sale of the i2000 implanter this year compared to the Ibis 1000 in the prior year. In addition, although variable overhead expenses decreased due to cost savings initiatives, we experienced an under absorption of overhead due to lack of implanter demand.

The total cost of sales and revenue for the fiscal year ended December 31, 2003 was \$ 4.4 million as compared to \$4.0 million for the fiscal year ended December 31, 2002, an increase of \$0.4 million, or 10%. The gross margin for all sales was 54% for the fiscal year ended December 31, 2003 as compared to 38% for the fiscal year ended December 31, 2002. This improvement in the gross margin for all sales is attributable to a 55% gross margin achieved on the i2000 implanter sale.

General and Administrative Expenses. General and administrative expenses for the fiscal year ended December 31, 2003 were \$2.3 million (25% of total revenue) as compared to \$2.2 million (34% of total revenue) for the fiscal year ended December 31, 2002, an increase of \$0.1 million, or 8%. This is primarily a result of increased professional services and premiums on Director's & Officers liability insurance which were offset by decreased payroll and payroll related expenses due to cost savings initiatives.

Marketing and Selling Expenses. Marketing and selling expenses for the fiscal year ended December 31, 2003 were \$1.2 million (13% of total revenue) as compared to \$1.5 million (24% of total revenue) for the fiscal year ended December 31, 2002, a decrease of \$0.3 million, or 18%. The decrease in marketing and selling expenses is primarily a result of decreases in payroll and payroll related expenses, travel and promotional expenses due to cost savings initiatives.

Research and Development Expenses. Internally funded research and development expenses decreased by \$0.9 million, or 14%, to \$5.4 million (57% of total revenue) for the fiscal year ended December 31, 2003 from \$6.3 million (98% of total revenue) for the fiscal year ended December 31, 2002. This is primarily a result of decreased payroll, payroll related costs and consulting expenses due to cost savings initiatives.

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Other Income. Total other income for the fiscal year ended December 31, 2003 was \$28 thousand as compared to \$0.3 million for the fiscal year ended December 31, 2002, a decrease of \$0.3 million, or 89%. The decrease in total other income is primarily attributable to decreased interest income earned as a result of lower cash balances and a reduction in interest rates along with increased interest expense due to a financing arrangement entered into during the second quarter of 2003.

Discontinued Operations. Discontinued operations incurred a loss of \$17.6 million for the year ended December 31, 2003. The negative margin of \$6.5 million for the year ended December 31, 2003 along with the impairment charge of \$11.1 million resulted in the total discontinued operations loss shown of \$17.6 million. This is in comparison to the discontinued operations loss of \$6.8 million for the year ended December 31, 2002 which was the result of the negative margin for this period.

Taxes. Ibis had federal net operating loss and general business credit carryovers of approximately \$82.6 million and \$1.3 million, respectively, at December 31, 2004, that may be used to offset future taxable income, if any, through 2024. State net operating loss and credit carryovers of \$63.9 million and \$1.5 million, respectively, have varying expiration dates. Deferred tax assets and related valuation allowance of \$3.2 million related to the net operating loss carryover results from the exercise of employee stock options, the tax benefit of which, when recognized, will be accounted for as a credit to additional paid-in capital rather than a reduction of income tax expense. Net operating loss carryovers and other tax attributes may be limited in the event of certain changes in ownership interests.

Liquidity and Capital Resources

As of December 31, 2004, Ibis had cash and cash equivalents of \$7.7 million, including the full payment of \$7.0 million for the i2000 SIMOX implanter which was recognized as revenue in the third quarter of 2004 based on the final acceptance by the customer.

Based on the Company's final disposal plans relative to the closure of the wafer operation, the Company was required to take cash related charges of approximately \$0.1 million. The Company will maintain a wafer research and development effort focused on continuous improvement of the equipment capabilities and for supporting the Company's equipment customers' needs at what is expected to be at a significantly reduced cost to the business going forward. As a result, the Company expects to reduce its monthly cash burn rate and believes it has sufficient cash for operations through the foreseeable future or at least the next twelve months.

During the fiscal year ended December 31, 2004, Ibis used \$3.3 million of cash for operating activities of continuing operations as compared to \$6.2 million in 2003. To date, Ibis' working capital requirements have been funded primarily through debt (capital leases) and equity financings. The principal uses of cash during the fiscal year ended December 31, 2004 were to fund operations and additions to property and equipment which totaled \$0.7 million. At December 31, 2004, Ibis had commitments to purchase approximately \$0.4 million in material to be used for the i2000 implanter currently under construction and operating expenses.

As part of our cash management plan we initiated additional cost savings measures during 2003 and 2004. This included the layoff of twenty-nine employees. In the third quarter of 2004 the Company announced that it was discontinuing the wafer manufacturing portion of the business. This resulted in the layoff of an additional seventeen employees. Our headcount for the year ended December 31, 2004 was 59 employees.

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In June of 2003, Ibis entered into an agreement with a financing agent to obtain payment for products from it's largest customer on an expedited basis. The discounted rate associated with this agreement was based on the prime rate and may fluctuate.

In September 2001, Ibis entered into a \$4.5 million equipment lease line with Heller Financial's Commercial Equipment Finance Group. The lease line was used to finance the purchase of process equipment for wafer production, primarily 300 mm wafers. This line was fully drawn down in two sale-leaseback transactions, bearing interest at approximately 8% with a term of three years, and a monthly net payment of approximately \$0.1 million. Ibis had a fair market value purchase option at the end of the lease term. The lease-line ended in the third quarter of 2004 and the Company exercised the fair market value purchase option at the negotiated buyout price of \$0.9 million. The Company intends to use the majority of the equipment to support its ongoing process development efforts and anticipates that it will be able to sell a portion of the equipment purchased for approximately \$0.5 million.

Our existing cash resources are believed to be sufficient to support our current operating plan for the next twelve months with the receipt of our latest order in January 2005, which we plan to ship during the second quarter of 2005. This expectation however, is based on our current operating plan and general sales outlook, each of which may change rapidly. We intend to continue to invest in our research, development and manufacturing capabilities. Changes in technology or sales growth beyond currently established capabilities may require further investment. Moreover, although Ibis is encouraged by the receipt of an additional order from SUMCO for an i2000 implanter and the opportunity to work with leading wafer manufacturers like SUMCO to develop further both the i2000 implanter and to improve the SIMOX process, SOI technology is still in an early stage. Further adoption of the technology and timing of future equipment orders are dependent on the continuing qualification of implanters and improvement programs at the device manufacturers, among other factors. Although no assurances can be given, the Company expects to ship the system in the second quarter of 2005 and collect 80% of the purchase price of the system, or \$4.8 million. Revenue recognition and receipt of the final 20% of the purchase price will be based on final customer acceptance at the customer's facility, which is expected to occur in the third or fourth quarter of this year. The timing of final acceptance and revenue recognition may vary depending on a number of factors, which include among other things tool performance at the customer site, and no guarantees can be given with respect to whether or when the Company will recognize revenue on this transaction. The timing of future orders is important and difficult to predict because customers can delay orders and/or request early shipment, either of which could cause the need for additional cash requirements. Forecasting future revenue, on a quarter-by-quarter basis, remains exceedingly difficult and significant variations quarter to quarter, are likely. We expect to continue to explore equity offerings and other forms of financing and anticipate that we may be required to raise additional capital in the future in order to finance future growth and our research and development programs. There can be no assurance, however, that our actual needs will not exceed expectations or that we will be able to fund our operations on a long-term basis in the absence of other sources. There also can be no assurance that any additional required longer term financing will be available through additional bank borrowings, debt or equity offerings or otherwise, or that if such financing is available, that it will be available on terms acceptable to us.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined in Regulation S-K Section 303(a)(4)(ii).

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Contractual Obligations

We have no significant contractual obligations not fully recorded on our Balance Sheets or fully disclosed in the Notes to our Financial Statements. We have no off-balance sheet arrangements as defined in Regulation S-K Section 303(a)(4)(ii).

At December 31, 2004, our outstanding contractual obligations included:

	Payment due by period					
	<u>Total</u>	<u>Less than 1 year</u>	<u>1 year</u>	<u>2 years</u>	<u>3-5 years</u>	<u>More than 5 years</u>
Contractual Obligations						
Minimum Operating Lease Payments	\$ 915,043	\$ 548,493	\$ 362,978	\$ 3,572	\$ --	\$ --
Minimum Royalty Payment Obligations	15,000	5,000	10,000	--	--	--
Total	<u>\$ 930,043</u>	<u>\$ 553,493</u>	<u>\$ 372,978</u>	<u>\$ 3,572</u>	<u>\$ --</u>	<u>\$ --</u>

Additional information regarding our financial commitments at December 31, 2004 is provided in the Notes to our Financial Statements. See "Notes to Financial Statements, Note 8, Commitments and Contingencies".

Effects Of Inflation

Ibis believes that over the past three years inflation has not had a significant impact on our sales or operating results.

New Accounting Pronouncements

In December 2004, the FASB issued FASB Statement No. 123 (revised 2004), "Shared-Based Payment." Statement 123(R) addresses the accounting for share-based payment transactions in which an enterprise receives employee services in exchange for (a) equity instruments of the enterprise or (b) liabilities that are based on the fair value of the enterprise's equity instruments or that may be settled by the issuance of such equity instruments. Statement 123(R) requires an entity to recognize the grant-date fair-value of stock options and other equity-based compensation issued to employees in the income statement. The revised Statement generally requires that an entity account for those transactions using the fair-value-based method, and eliminates the intrinsic value method of accounting in APB Opinion No. 25, "Accounting for Stock Issued to Employees", which was permitted under Statement 123, as originally issued.

The revised Statement requires entities to disclose information about the nature of the share-based payment transactions and the effects of those transactions on the financial statements.

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Statement 123(R) is effective for public companies that do not file as small business issuers as of the beginning of the first interim or annual reporting period that begins after June 15, 2005 (i.e., third quarter 2005 for the Company). All public companies must use either the modified prospective or the modified retrospective transition method. Early adoption of this Statement for interim or annual periods for which financial statements or interim reports have not been issued is encouraged. The Company has not yet completed the evaluation of the impact of adopting of this pronouncement which must be adopted in the third quarter of our fiscal year 2005.

In November 2004, the FASB issued Statement No. 151, "Inventory Costs", to amend the guidance in Chapter 4, "Inventory Pricing", of FASB Accounting Research Bulletin No. 43, "Restatement and Revision of Accounting Research Bulletins." Statement No. 151 clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). The Statement requires that those items be recognized as current-period charges. Additionally, Statement 151 requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. Statement No. 151 is effective for fiscal years beginning after June 15, 2005. The Company is currently evaluating the impact of the adoption of this Statement.

As part of its short-term international convergence project with the IASB, on December 16, 2004, the FASB issued Statement 153 to address the accounting for nonmonetary exchanges of productive assets. Statement 153 amends APB No. 29, "Accounting for Nonmonetary Exchanges", which established a narrow exception for nonmonetary exchanges of similar productive assets from fair value measurement. This Statement eliminates that exception and replaces it with an exception for exchanges that do not have commercial substance. Under Statement 153 nonmonetary exchanges are required to be accounted for at fair value, recognizing any gains or losses, if their fair value is determinable within reasonable limits and the transaction has commercial substance.

The Statement specifies that a nonmonetary exchange has commercial substance if future cash flows of the entity are expected to change significantly as a result of the exchange. An entity should apply the provisions of Statement 153 prospectively for nonmonetary asset exchange transactions in fiscal periods beginning after June 15, 2005. The Company will adopt this Statement in fiscal 2005 and adoption is not expected to have a material impact on our financial position or results of operations.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The exposure of market risk associated with risk-sensitive instruments is not material to Ibis, as we do not transact our sales denominated in other than United States dollars, invest primarily in short-term commercial paper, hold our investments until maturity and have not entered into hedging transactions.

FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

IBIS TECHNOLOGY CORPORATION

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Ibis Technology Corporation:

We have audited the accompanying balance sheets of Ibis Technology Corporation as of December 31, 2003 and 2004, and the related statements of operations, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 2004. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Ibis Technology Corporation at December 31, 2003 and 2004, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2004, in conformity with U.S. generally accepted accounting principles.

/s/ KPMG LLP

Boston, Massachusetts
March 30, 2005

IBIS TECHNOLOGY CORPORATION

BALANCE SHEETS

December 31, 2003 and 2004

	<u>2003</u>	<u>2004</u>
<u>Assets</u>		
Current assets:		
Cash and cash equivalents.....	\$ 14,174,716	\$ 7,726,072
Accounts receivable, trade, net (notes 4 and 15).....	123,548	34,458
Unbilled revenue.....	528,581	--
Inventories, net (note 5).....	1,758,449	5,625,167
Prepaid expenses and other current assets.....	247,602	760,721
Assets held for sale.....	--	131,416
Total current assets.....	<u>16,832,896</u>	<u>14,277,834</u>
Property and equipment (notes 6, 8 and 17).....	40,584,764	33,660,086
Less: Accumulated depreciation and amortization.....	<u>(23,743,179)</u>	<u>(27,335,477)</u>
Net property and equipment.....	16,841,585	6,324,609
Patents and other assets, net (note 7).....	<u>1,668,558</u>	<u>1,680,197</u>
Total assets.....	<u>\$ 35,343,039</u>	<u>\$ 22,282,640</u>
 <u>Liabilities and Stockholders' Equity</u>		
Current liabilities:		
Capital lease obligation, current (note 8).....	\$ 1,184,399	\$ --
Accounts payable.....	404,512	392,875
Accrued liabilities (note 9).....	2,384,915	1,417,904
Deferred revenue (note 10).....	<u>252,000</u>	<u>52,000</u>
Total current liabilities.....	4,225,826	1,862,779
Total liabilities.....	<u>4,225,826</u>	<u>1,862,779</u>
 Commitments and contingencies (notes 8, 10 and 15)		
 Stockholders' equity (notes 13 and 14):		
Undesignated preferred stock, \$.01 par value. Authorized 2,000,000 shares; none issued.....	--	--
Common stock, \$.008 par value. Authorized 50,000,000 shares; issued and outstanding 10,651,170 shares and 10,719,595 in 2003 and 2004, respectively.....	85,209	85,757
Additional paid-in capital.....	92,903,618	93,124,259
Accumulated deficit.....	<u>(61,871,614)</u>	<u>(72,790,155)</u>
Total stockholders' equity.....	<u>31,117,213</u>	<u>20,419,861</u>
Total liabilities and stockholders' equity.....	<u>\$ 35,343,039</u>	<u>\$ 22,282,640</u>

See accompanying notes to financial statements.

IBIS TECHNOLOGY CORPORATION

STATEMENTS OF OPERATIONS

Years ended December 31, 2002, 2003 and 2004

	<u>2002</u>	<u>2003</u>	<u>2004</u>
Contract and other revenue (note 11).....	\$ 282,979	\$ 660,429	\$ 390,975
Equipment revenue.....	<u>6,102,748</u>	<u>8,781,907</u>	<u>7,535,270</u>
Total sales and revenue (note 15).....	<u>6,385,727</u>	<u>9,442,336</u>	<u>7,926,245</u>
Cost of contract and other revenue.....	115,141	44,579	15,370
Cost of equipment revenue.....	<u>3,868,197</u>	<u>4,331,044</u>	<u>4,721,673</u>
Total cost of sales and revenue.....	<u>3,983,338</u>	<u>4,375,623</u>	<u>4,737,043</u>
Gross profit	<u>2,402,389</u>	<u>5,066,713</u>	<u>3,189,202</u>
Operating expenses:			
General and administrative.....	2,174,198	2,337,463	2,221,167
Marketing and selling.....	1,509,792	1,235,798	1,520,508
Research and development.....	<u>6,257,839</u>	<u>5,380,868</u>	<u>5,329,528</u>
Total operating expenses.....	<u>9,941,829</u>	<u>8,954,129</u>	<u>9,071,203</u>
Loss from operations.....	<u>(7,539,440)</u>	<u>(3,887,416)</u>	<u>(5,882,001)</u>
Other income (expense):			
Interest income.....	266,370	80,511	110,385
Interest expense.....	(11,379)	(58,399)	(34,718)
Other (note 16).....	<u>--</u>	<u>5,398</u>	<u>166,418</u>
Total other income	<u>254,991</u>	<u>27,510</u>	<u>242,085</u>
Loss before income taxes.....	<u>(7,284,449)</u>	<u>(3,859,906)</u>	<u>(5,639,916)</u>
Income tax expense (benefit) (note 12).....	<u>1,256</u>	<u>(7,744)</u>	<u>1,256</u>
Loss from continuing operations.....	<u>(7,285,705)</u>	<u>(3,852,162)</u>	<u>(5,641,172)</u>
Discontinued operations (note 17):			
Gain (loss) from discontinued operations	(6,810,474)	(17,597,627)	(3,178,529)
Loss on disposal	<u>--</u>	<u>--</u>	<u>(2,098,840)</u>
Income (loss) from discontinued operations	<u>(6,810,474)</u>	<u>(17,597,627)</u>	<u>(5,277,369)</u>
Net loss.....	<u><u>\$(14,096,179)</u></u>	<u><u>\$(21,449,789)</u></u>	<u><u>\$(10,918,541)</u></u>
Earnings (loss) per share:			
Basic			
Continuing operations.....	\$ (0.79)	\$ (0.40)	\$ (0.53)
Discontinued operations.....	<u>(0.74)</u>	<u>(1.81)</u>	<u>(0.49)</u>
Net loss	<u><u>\$(1.53)</u></u>	<u><u>\$(2.21)</u></u>	<u><u>\$(1.02)</u></u>
Diluted.....			
Continuing operations	\$ (0.79)	\$ (0.40)	\$ (0.53)
Discontinued operations.....	<u>(0.74)</u>	<u>(1.81)</u>	<u>(0.49)</u>
Net Loss	<u><u>\$(1.53)</u></u>	<u><u>\$(2.21)</u></u>	<u><u>\$(1.02)</u></u>
Weighted average common shares outstanding			
Basic.....	9,207,922	9,727,513	10,665,842
Diluted.....	9,207,922	9,727,513	10,665,842

See accompanying notes to financial statements.

IBIS TECHNOLOGY CORPORATION
STATEMENTS OF STOCKHOLDERS' EQUITY
Years ended December 31, 2002, 2003 and 2004

	<u>Common Stock</u>	<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</u>	<u>Total Stockholders' Equity</u>
Balances at December 31, 2001...	\$ 67,297	\$ 66,618,223	\$ (26,325,646)	\$ 40,359,874
Exercise of stock options.....	1	1	--	2
Common stock issued, net of issuance costs	8,000	12,105,469	--	12,113,469
Employee Stock Purchase Plan.....	501	377,339	--	377,840
Net loss.....	<u>--</u>	<u>--</u>	<u>(14,096,179)</u>	<u>(14,096,179)</u>
Balances at December 31, 2002...	75,799	79,101,032	(40,421,825)	38,755,006
Exercise of stock options.....	989	986,814	--	987,803
Common stock issued, net of issuance costs of \$696,571.....	8,000	12,545,429	--	12,553,429
Employee Stock Purchase Plan.....	421	270,343	--	270,764
Net loss.....	<u>--</u>	<u>--</u>	<u>(21,449,789)</u>	<u>(21,449,789)</u>
Balances at December 31, 2003...	85,209	92,903,618	(61,871,614)	31,117,213
Exercise of stock options.....	4	3,056	--	3,060
Employee Stock Purchase Plan.....	544	217,585	--	218,129
Net loss.....	<u>--</u>	<u>--</u>	<u>(10,918,541)</u>	<u>(10,918,541)</u>
Balances at December 31, 2004...	<u>\$ 85,757</u>	<u>\$ 93,124,259</u>	<u>\$ (72,790,155)</u>	<u>\$ 20,419,861</u>

See accompanying notes to financial statements

IBIS TECHNOLOGY CORPORATION

STATEMENTS OF CASH FLOWS

Years ended December 31, 2002, 2003 and 2004

	<u>2002</u>	<u>2003</u>	<u>2004</u>
Cash flows from operating activities:			
Net loss.....	\$(14,096,179)	\$(21,449,789)	\$(10,918,541)
Less: loss from discontinued operations.....	<u>(6,810,474)</u>	<u>(17,597,627)</u>	<u>(5,277,369)</u>
Loss from continuing operations.....	(7,285,705)	(3,852,162)	(5,641,172)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization.....	1,624,341	1,510,460	1,962,716
Changes in operating assets and liabilities:			
Accounts receivable, trade.....	4,275,075	494,043	74,555
Unbilled revenue.....	--	(528,581)	528,581
Inventories.....	--	--	141,404
Deferred costs.....	(147,316)	2,621,580	--
Prepaid expenses and other current assets.....	97,801	(134,873)	24,385
Accounts payable.....	(189,311)	(133,468)	184,893
Accrued liabilities and deferred revenue.....	<u>21,492</u>	<u>(6,150,171)</u>	<u>(613,114)</u>
Net cash used in operating activities of continuing operations	<u>(1,603,623)</u>	<u>(6,173,172)</u>	<u>(3,337,752)</u>
Cash flows from investing activities:			
Additions to property and equipment, net.....	(279,339)	(30,133)	(721,002)
Additions to assets held for sale.....	--	--	(131,416)
Other assets.....	<u>(117,781)</u>	<u>(110,774)</u>	<u>(102,815)</u>
Net cash used in investing activities of continuing operations.....	<u>(397,120)</u>	<u>(140,907)</u>	<u>(955,233)</u>
Cash flows from financing activities:			
Proceeds from sales of common stock, net of issuance costs.....	12,113,469	12,553,429	--
Exercise of stock options, warrants and Employee Stock Purchase Plan.....	<u>377,840</u>	<u>1,258,567</u>	<u>221,189</u>
Net cash provided by financing activities of continuing operations.....	<u>12,491,309</u>	<u>13,811,996</u>	<u>221,189</u>
Net cash used for discontinued operations	<u>(11,832,447)</u>	<u>(5,069,119)</u>	<u>(2,376,848)</u>
Net decrease (increase) in cash and cash equivalents.....	(1,341,881)	2,428,798	(6,448,644)
Cash and cash equivalents, beginning of year.....	<u>13,087,799</u>	<u>11,745,918</u>	<u>14,174,716</u>
Cash and cash equivalents, end of year.....	<u>\$ 11,745,918</u>	<u>\$ 14,174,716</u>	<u>\$ 7,726,072</u>
Supplemental disclosures of cash flow information:			
Cash paid during the year for interest.....	<u>\$ 11,379</u>	<u>\$ 58,399</u>	<u>\$ 34,718</u>
Transfer of internally constructed equipment from property and equipment to inventory.....	<u>--</u>	<u>--</u>	<u>3,674,903</u>

See accompanying notes to financial statements.

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS

December 31, 2003 and 2004

(1) Nature of Business and Organization

Ibis Technology Corporation (the "Company") was incorporated in October 1987 for the purpose of supplying silicon-on-insulator (SOI) wafers formed by SIMOX (Separation by Implantation of Oxygen) technology. SIMOX-SOI wafers are manufactured by the Company using a specialized oxygen ion implanter, which was developed and manufactured by the Company and is integrated with other specialized processes and characterization equipment. The Company is the leading manufacturer of high current oxygen implanters and began selling these oxygen implanters in 1996.

(2) Summary of Significant Accounting Policies

(a) *Cash and Cash Equivalents*

Cash equivalents represent highly liquid investments with original maturities of three months or less.

(b) *Inventories*

Inventories are stated at the lower of cost or market. Cost is determined using the first-in, first-out ("FIFO") cost method.

(c) *Property and Equipment and Impairment of Long-Lived Assets*

Property and equipment is stated at cost. Depreciation is provided using the straight-line method over the estimated useful lives of the respective assets, ranging from three to eight years. Amortization is provided using the straight-line method over the life of the lease, ranging from three and one-half to five years.

The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net undiscounted cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the degree to which the carrying amount of the assets exceeds the fair value of the assets.

(d) *Patents and Other Assets*

Other assets consist principally of deposits, prepaid royalties and licenses. Patents and prepaid royalties are amortized over five years using the straight-line method. Licenses are amortized over seven years using the straight-line method.

(e) *Revenue Recognition*

The Company historically recognized revenue from wafer product sales, equipment sales and the sales of spare parts when all of the following criteria have been met: (1) evidence exists that the customer is bound to the transaction; (2) the product has been delivered to the customer and, when applicable, the product has been installed and accepted by the customer; (3) the sales price to the customer has been fixed or is determinable; and (4) collectibility of the sale price is reasonably assured. The Company historically recognized revenue from wafer sales upon shipment and recognizes revenue from implanter sales upon acceptance at the customer's site. Provisions for estimated sales returns and allowances are made at the time the products are sold. Revenue derived from contracts and services is recognized upon performance.

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS - (Continued)

Contract revenue is recognized on the percentage-of-completion method. Provisions for anticipated losses are made in the period in which such losses become determinable. Unbilled revenue under customer contracts represents revenue earned under the percentage-of-completion method but not yet billable under the terms of the contract. These amounts are billable based on the terms of the contract, which can include shipment of the product, achievement of milestones or completion of the contract.

(f) Research and Development

Research and development costs are charged to expense as incurred. Research and development costs funded by contracts are included as a component of cost of contract revenue.

(g) Net Income (Loss) Per Common Share

Net income (loss) per share of common stock is computed based upon the weighted average number of shares outstanding during each period and including the dilutive effect, if any, of stock options and warrants. SFAS 128 requires the presentation of basic and diluted earnings (loss) per share for all periods presented. As the Company was in a net loss position for each of the years in the three-years ended December 31, 2004, common stock equivalents of 39,644, 94,706 and 133,092 for the years ended December 31, 2002, 2003 and 2004, respectively, were excluded from the diluted loss per share calculation as they would be antidilutive. As a result, diluted loss per share is the same as basic loss per share for 2002, 2003 and 2004.

The reconciliation of the denominators of the basic and diluted net income (loss) per common share for the Company's net income (loss) is as follows:

	Years Ended December 31,					
	2002		2003		2004	
	Diluted	Basic	Diluted	Basic	Diluted	Basic
Loss from:						
Continuing operations	\$ (7,285,705)	\$ (7,285,705)	\$ (3,852,162)	\$ (3,852,162)	\$ (5,641,172)	\$ (5,641,172)
Discontinued operations	<u>(6,810,474)</u>	<u>(6,810,474)</u>	<u>(17,597,627)</u>	<u>(17,597,627)</u>	<u>(5,277,369)</u>	<u>(5,277,369)</u>
Net Loss	<u><u>\$ (14,096,179)</u></u>	<u><u>\$ (14,096,179)</u></u>	<u><u>\$ (21,449,789)</u></u>	<u><u>\$ (21,449,789)</u></u>	<u><u>\$ (10,918,541)</u></u>	<u><u>\$ (10,918,541)</u></u>
Weighted average common shares outstanding-	9,207,922	<u>9,207,922</u>	9,727,513	<u>9,727,513</u>	10,665,842	<u>10,665,842</u>
Potential common share equivalents.	---		---		---	
Weighted average shares outstanding	<u>9,207,922</u>		<u>9,727,513</u>		<u>10,665,842</u>	
Earnings (loss) per common share and common share equivalents:						
Continuing operations	\$ (0.79)	\$ (0.79)	\$ (0.40)	\$ (0.40)	\$ (0.53)	\$ (0.53)
Discontinued operations	<u>(0.74)</u>	<u>(0.74)</u>	<u>(1.81)</u>	<u>(1.81)</u>	<u>(0.49)</u>	<u>(0.49)</u>
Net loss	<u><u>\$ (1.53)</u></u>	<u><u>\$ (1.53)</u></u>	<u><u>\$ (2.21)</u></u>	<u><u>\$ (2.21)</u></u>	<u><u>\$ (1.02)</u></u>	<u><u>\$ (1.02)</u></u>

h) Issuance Costs

Common stock issuance costs are netted against additional paid-in capital.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

(i) Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results may differ from these estimates. Management exercises judgment and relies on estimates in recognizing revenue, valuing inventory, accruing certain liabilities, and assessing long-lived asset impairment, estimated useful lives of long-lived assets, inventory obsolescence and accounts receivable reserves.

(j) Fair Value of Financial Instruments

Financial instruments of the Company consist of cash and cash equivalents, accounts receivable, accounts payable, accrued liabilities and capital lease obligations. The carrying amount of these financial instruments approximates fair value.

(k) Stock-Based Compensation

The Company accounts for its stock option plans under the recognition and measurement principles of APB Opinion No. 25, Accounting for Stock Issued to Employees, and related interpretations. No stock-based compensation cost is reflected in net income for these plans, as all options granted under these plans had an exercise price equal to the market value of the underlying common stock on the date of grant. The following table illustrates the effect on net income (loss) and earnings (loss) per share if the Company had applied the fair value recognition provisions of FASB Statement No. 123, Accounting for Stock Based Compensation, to stock based compensation.

	<u>Year Ended December 31,</u>		
	<u>2002</u>	<u>2003</u>	<u>2004</u>
Net loss, as reported	\$ (14,096,179)	\$ (21,449,789)	\$ (10,918,541)
Add: Stock-based employee compensation expense included in reported net loss, net of related tax effects	(2,362,591)	(2,726,741)	(1,284,491)
Pro-forma net loss	<u>\$ (16,458,770)</u>	<u>\$ (24,176,530)</u>	<u>\$ (12,203,032)</u>
Net loss per share:			
Basic – as reported	\$ (1.53)	\$ (2.21)	\$ (1.02)
Basic – pro-forma	\$ (1.79)	\$ (2.49)	\$ (1.14)
Diluted – as reported	\$ (1.53)	\$ (2.21)	\$ (1.02)
Diluted – pro-forma	\$ (1.79)	\$ (2.49)	\$ (1.14)

The fair value of each stock option is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	<u>2002</u>		
	<u>Stock Options</u>	<u>ESPP1</u>	<u>ESPP2</u>
Risk-free interest rate	2.21%	1.74%	1.60%
Expected dividend yield	--	--	--
Expected volatility	114.06%	87.60%	103.3 %
Expected life (years)	3	.5	.5
Weighted average fair value of options granted during the year	\$5.32	\$2.80	\$2.06
	<u>2003</u>		
	<u>Stock Options</u>	<u>ESPP1</u>	<u>ESPP2</u>
Risk-free interest rate	3.10%	1.19%	1.01%
Expected dividend yield	--	--	--
Expected volatility	97.99%	103.34%	81.01%
Expected life (years)	3	.5	.5
Weighted average fair value of options granted during the year	\$4.42	\$2.05	\$1.83

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS - (Continued)

	<u>2004</u>		
	Stock Options	ESPP1	ESPP2
Risk-free interest rate	2.66%	1.08%	1.90%
Expected dividend yield	--	--	--
Expected volatility	94.83%	79.10%	116.50%
Expected life (years)	3	.5	.5
Weighted average fair value of options granted during the year	\$2.97	\$2.23	\$0.96

Pro forma net loss reflects only options granted in 1995 through 2004. Therefore, the full impact of calculating compensation costs for stock options under SFAS No. 123 is not reflected because compensation costs for options granted prior to January 1, 1995 are not considered.

(l) Reclassifications

Certain prior year amounts have been reclassified to conform to current year presentation. These reclassifications had no effect on the Company's reported net loss or financial position.

(m) New Accounting Pronouncements

In December 2004, the FASB issued FASB Statement No. 123 (revised 2004), "*Share-Based Payment*." Statement 123(R) addresses the accounting for share-based payment transactions in which an enterprise receives employee services in exchange for (a) equity instruments of the enterprise or (b) liabilities that are based on the fair value of the enterprise's equity instruments or that may be settled by the issuance of such equity instruments. Statement 123(R) requires an entity to recognize the grant-date fair-value of stock options and other equity-based compensation issued to employees in the income statement. The revised Statement generally requires that an entity account for those transactions using the fair-value-based method, and eliminates the intrinsic value method of accounting in APB Opinion No. 25, "*Accounting for Stock Issued to Employees*", which was permitted under Statement 123, as originally issued.

The revised Statement requires entities to disclose information about the nature of the share-based payment transactions and the effects of those transactions on the financial statements.

Statement 123(R) is effective for public companies that do not file as small business issuers as of the beginning of the first interim or annual reporting period that begins after June 15, 2005 (i.e., third quarter 2005 for the Company). All public companies must use either the modified prospective or the modified retrospective transition method. Early adoption of this Statement for interim or annual periods for which financial statements or interim reports have not been issued is encouraged. The Company has not yet evaluated the impact of adoption of this pronouncement which must be adopted in the third quarter of our fiscal year 2005.

In November 2004, the FASB issued Statement No. 151, "*Inventory Costs*", to amend the guidance in Chapter 4, "*Inventory Pricing*", of FASB Accounting Research Bulletin No. 43, "*Restatement and Revision of Accounting Research Bulletins*." Statement No. 151 clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). The Statement requires that those items be recognized as current-period charges. Additionally, Statement 151 requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. Statement No. 151 is effective for fiscal years beginning after June 15, 2005. The Company is currently evaluating the impact of the adoption of this Statement.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

As part of its short-term international convergence project with the IASB, on December 16, 2004, the FASB issued Statement 153 to address the accounting for nonmonetary exchanges of productive assets. Statement 153 amends APB No. 29, "Accounting for Nonmonetary Exchanges", which established a narrow exception for nonmonetary exchanges of similar productive assets from fair value measurement. This Statement eliminates that exception and replaces it with an exception for exchanges that do not have commercial substance. Under Statement 153 nonmonetary exchanges are required to be accounted for at fair value, recognizing any gains or losses, if their fair value is determinable within reasonable limits and the transaction has commercial substance.

The Statement specifies that a nonmonetary exchange has commercial substance if future cash flows of the entity are expected to change significantly as a result of the exchange. An entity should apply the provisions of Statement 153 prospectively for nonmonetary asset exchange transactions in fiscal periods beginning after June 15, 2005. The Company will adopt this Statement in fiscal 2005 and adoption is not expected to have a material impact on our financial position or results of operations.

(3) Liquidity

Historically, the Company has financed its operations and met its capital requirements through funds generated from operations, the issuance of common stock, equipment lines of credit, a working capital line of credit, a term loan, sales-leaseback arrangements and collaborative arrangements. In July 2004, the Company discontinued its wafer manufacturing business, which was characterized by volatile production volumes and costs associated with periodic changes and continuing improvements in the process. Because of this unpredictability, and because it was also likely that additional capital investments would have to be made to keep the wafer manufacturing process up to date, the Company decided to discontinue the wafer manufacturing portion of the business in 2004 and to focus exclusively on the equipment manufacturing business. The Company will maintain a research and development effort focused on continuous improvement of the equipment capabilities and for supporting the Company's equipment customers' needs at what is expected to be a significantly reduced cost to the business going forward.

As part of our cash management plan we initiated additional cost savings measures during 2003 and 2004, including the layoff of twenty-nine employees. Our headcount for the year ended December 31, 2004 was 59 employees.

As of December 31, 2004, the Company had cash and cash equivalents of \$7.7 million, including the payment of \$7.0 million for the i2000 SIMOX implanter which was recognized as revenue in the third quarter of 2004 based on the final acceptance by the customer. During the fiscal year ended December 31, 2004, Ibis used \$3.3 million of cash for operating activities of continuing operations as compared to \$6.2 million in 2003. The principal uses of cash during the fiscal year ended December 31, 2004 were to fund operations and additions to property and equipment which totaled \$0.7 million. At December 31, 2004, Ibis had commitments to purchase approximately \$0.4 million in material to be used for the i2000 implanter currently under construction and operating expenses.

In September 2001, Ibis entered into a \$4.5 million equipment lease line with Heller Financial's Commercial Equipment Finance Group. The lease line was used to finance the purchase of process equipment for wafer production, primarily 300 mm wafers. This line was fully drawn down in two sale-leaseback transactions, bearing interest at approximately 8% with a term of three years, and a monthly net payment of approximately \$0.1 million. Ibis had a fair market value purchase option at the end of the lease term. The lease-line ended in the third quarter of 2004 and the Company exercised the fair market value purchase option at the negotiated buyout price of \$0.9 million. The Company intends to use the majority of the equipment to support its ongoing process development efforts. At December 31, 2004 the accompanying balance sheet

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS - (Continued)

reflects approximately \$0.1 million of assets held for sale, which the company anticipates it will be able to sell in fiscal 2005.

The Company's management believes that existing cash resources are sufficient to support the current operating plan for the next twelve months with the receipt of the latest i2000 order in January 2005, which the Company plans to ship during the second quarter of 2005. This expectation however, is based on the Company's current operating plan and general sales outlook, each of which may change rapidly. The Company intends to continue to invest in research, development and manufacturing capabilities. Changes in technology or sales growth beyond currently established capabilities may require further investment. Moreover, although Ibis is encouraged by the receipt of an additional order from SUMCO for an i2000 implanter and the opportunity to work with leading wafer manufacturers like SUMCO to develop further both the i2000 implanter and to improve the SIMOX process, SOI technology is still in an early stage. Further adoption of the technology and timing of future equipment orders are dependent on the continuing qualification of implanters and improvement programs at the device manufacturers, among other factors. Although no assurances can be given, the Company expects to ship the system in the second quarter of 2005 and collect 80% of the purchase price of the system, or \$4.8 million. Revenue recognition and receipt of the final 20% of the purchase price will be based on final customer acceptance at the customer's facility, which is expected to occur in the third or fourth quarter of this year. The timing of final acceptance and revenue recognition may vary depending on a number of factors, which include among other things tool performance at the customer site, and no guarantees can be given with respect to whether or when the Company will recognize revenue on this transaction. The timing of future orders is important and difficult to predict because customers can delay orders and/or request early shipment, either of which could cause the need for additional cash requirements. Forecasting future revenue, on a quarter-by-quarter basis, remains exceedingly difficult and significant variations quarter to quarter, are likely. The Company expects to continue to explore equity offerings and other forms of financing and anticipate that we may be required to raise additional capital in the future in order to finance future growth and our research and development programs. There can be no assurance, however, that our actual needs will not exceed expectations or that we will be able to fund our operations on a long-term basis in the absence of other sources. There also can be no assurance that any additional required longer term financing will be available through additional bank borrowings, debt or equity offerings or otherwise, or that if such financing is available, that it will be available on terms acceptable to us.

(4) Accounts Receivable

Accounts receivable consisted of the following at December 31:

	<u>2003</u>	<u>2004</u>
Accounts receivable, trade.....	\$ 188,548	\$ 59,458
Less: Allowance for doubtful accounts.....	<u>(65,000)</u>	<u>(25,000)</u>
	<u>\$ 123,548</u>	<u>\$ 34,458</u>

(5) Inventories:

Inventories consisted of the following at December 31:

	<u>2003</u>	<u>2004</u>
Raw materials.....	\$ 1,464,434	\$ --
Work in process.....	177,715	--
Finished goods.....	<u>116,300</u>	<u>--</u>
Subtotal wafer inventory.....	\$ 1,758,449	--
Equipment inventory.....	-	<u>5,625,167</u>
Total inventory.....	<u>\$ 1,758,449</u>	<u>\$ 5,625,167</u>

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

Equipment inventory at December 31, 2004 consists of i2000 parts and/or implanters under construction or otherwise available for resale. At December 31, 2003 these costs were included in construction in progress under property and equipment and amounted to \$3.7 million. With the discontinuance of the wafer operation in the third quarter of 2004, all wafer inventory was written off to the loss from discontinued operations with the exception of the 300 mm raw wafers valued at \$0.8 million, that was reclassified as prepaid expenses and other assets to be used for future R&D and implanter qualifications.

(6) Property and Equipment

Property and equipment consisted of the following at December 31:

	<u>2003</u>	<u>2004</u>
Machinery and equipment.....	\$ 30,082,295	\$ 27,662,517
Furniture and fixtures.....	416,260	416,260
Leasehold improvements.....	5,399,063	5,575,038
Construction in progress.....	4,687,146	6,271
	<u>\$ 40,584,764</u>	<u>\$ 33,660,086</u>

The Company discontinued its wafer manufacturing business in July 2004 (see note 17). As a result the company recorded a net fixed asset impairment charge to the loss from discontinued operations of \$0.9 million. Fixed assets subject to capital leases at December 31, 2003 were \$4.6 million. Accumulated depreciation for fixed assets subject to capital leases was \$3.4 million at December 31, 2003.

At December 31, 2004, the Company had commitments to purchase approximately \$0.4 million in material or subassemblies to be used in normal operations.

(7) Other Assets

In December 2000, the Company entered into a royalty-bearing license agreement which gives the Company the right to manufacture SIMOX-SOI wafers using the licensed process. Warrants were issued in connection with this agreement. The cost of the license agreement, including cash paid and the fair value of the warrants issued, is \$2.3 million and is included in other assets at December 31, 2003 and December 31, 2004, net of accumulated amortization of \$1.0 million and \$1.3 million, respectively (see note 14 (c)).

In the third quarter of 2004, with the discontinuance of the wafer operation, all wafer inventory was written off to the loss from discontinued operation with the exception of 300mm raw wafers that were reclassified as prepaid expenses and other assets to be used for future R&D and implanter qualifications. The amount at December 31, 2004 in other assets is approximately \$0.3 million.

(8) Commitments and Contingencies

(a) Leases

In December 2003, the Company renewed its non-cancelable operating lease for its office and manufacturing facility with a new term expiring in 2006 and a five-year renewal option. In April 2000, the Company entered into a non-cancelable operating lease for an additional manufacturing facility expiring in 2005 with a five-year renewal option. This lease was amended in September 2001 by which Ibis secured an additional 20,000 square feet of adjacent space for future expansion. The Company has chosen not to renew this lease, due to expire on May 31, 2005 and will consolidate the operations into the one location.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

In September 2001 Ibis entered into a \$4.5 million equipment lease line. The lease line was used to finance the purchase of process equipment for wafer production of primarily 300mm wafers in a sale-leaseback transaction bearing interest at approximately 8% with a term of three years and a monthly net payment of approximately \$0.1 million. Ibis had a fair market value purchase option at the end of the lease term. The lease-line was secured by the underlying assets and all other property and equipment of Ibis. The gain of approximately \$36 thousand under the sale and leaseback has been deferred and will be amortized as a reduction of depreciation expense over the life of the lease. The unamortized amount of this gain at December 31, 2003 and 2004 was \$9,110 and \$0 respectively. The Company leased other equipment used in operations under non-cancelable operating leases expiring through 2007. The Company also had equipment used in operations under non-cancelable capital leases which expired in 2004. The Company exercised the fair market value purchase option of those leases at the end of the lease term in 2004 with a buyout price of \$900,000.

The Company has no significant contractual obligations not fully recorded on its Balance Sheets or fully disclosed in the Notes to its Financial Statements. The Company has no off-balance sheet arrangements.

At December 31, 2004, the Company's contractual obligations included:

	Payment due by period					
	<u>Total</u>	<u>Less than 1 year</u>	<u>1 year</u>	<u>2 years</u>	<u>3-5 years</u>	<u>More than 5 years</u>
Contractual Obligations						
Minimum Operating Lease Payments	\$ 915,043	\$ 548,493	\$ 362,978	\$ 3,572	--	--
Minimum Royalty Payment Obligations	<u>15,000</u>	<u>5,000</u>	<u>10,000</u>	<u>--</u>	<u>--</u>	<u>--</u>
Total	<u>\$ 930,043</u>	<u>\$ 553,493</u>	<u>\$ 372,978</u>	<u>\$ 3,572</u>	<u>\$ --</u>	<u>\$ --</u>

Rent expense was approximately \$723,000, \$742,000 and \$702,000 for the years ended December 31, 2002, 2003 and 2004 respectively.

(b) Contingencies

Five class action securities lawsuits have been filed in the United States District Court in the District of Massachusetts against Ibis and its President and CEO: Martin Smolowitz v. Ibis Technology Corporation., et al., Civ. No. 03-12613 (RCL) (D. Mass.); Fred Den v. Ibis Technology Corporation., et al., Civ. No. 04-10060 (RCL) (D. Mass.); Weinstein v. Ibis Technology Corporation., et al., Civ. No. 04-10088 (RCL) (D. Mass.); George Harrison v. Ibis Technology Corporation., et al., Civ. No. 04-10286 (RCL) (D. Mass.); and Eleanor Pitzer v. Ibis Technology Corporation., et al, Civ. No. 04-10446 (RCL) (D. Mass.). On June 4, 2004, the Court entered an order consolidating these actions under the caption In re Ibis Technology Securities Litigation, C.A. 04-10446 RCL. On July 6, 2004, a consolidated amended class action complaint was filed which alleges, among other things, that the Company violated federal securities laws by allegedly making misstatements to the investing public relating to demand for certain Ibis products and intellectual property issues relating to the sale of the i2000 oxygen implanter. The plaintiffs are seeking unspecified damages. On August 5, 2004, we filed a motion to dismiss the consolidated amended complaint on the grounds, among others, that it failed to state a claim on which the relief could be granted. That motion now has been fully briefed, and we are awaiting a ruling from the Court. While we believe that the allegations are without merit, and we intend to vigorously defend against the suits, there can be no guarantee as to how they ultimately will be resolved.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

In addition, Ibis has been named as a nominal defendant in a shareholder derivative action filed in February 2004 against certain of its directors and officers: Louis F. Matheson, Jr. v. Martin J. Reid et al., Civ. Act. No. 04-10341 (RCL). The complaint alleges, among other things, that the alleged conduct challenged in the securities cases pending against Ibis in Massachusetts (described above) constitutes a breach of the defendants' fiduciary duties to Ibis. The complaint seeks unspecified money damages and other relief ostensibly on behalf of Ibis. On June 4, 2004, the Court entered an order staying this matter pending the entry of a final order on any motion filed by the Company to dismiss the consolidated class action complaint referenced above.

Litigation may be time-consuming, expensive and disruptive to normal business operations, and the outcome of litigation is difficult to predict. An unfavorable resolution of these litigation matters could have a material adverse effect on our business, results of operations and financial condition.

IBIS TECHNOLOGY CORPORATION
NOTES TO FINANCIAL STATEMENTS - (Continued)

(9) Accrued Liabilities

Current accrued liabilities were as follows at December 31:

	<u>2003</u>	<u>2004</u>
Accrued vacation.....	\$ 195,638	\$ 107,177
Accrued warranty.....	593,969	708,830
Accrued payroll.....	266,281	92,762
Accrued equipment costs.....	799,183	--
Accrued expenses.....	<u>529,844</u>	<u>509,135</u>
Total.....	<u>\$ 2,384,915</u>	<u>\$ 1,417,904</u>

(10) Deferred Revenue

Deferred revenue includes prepaid license and royalty fees in the amount of \$52,000 at December 31, 2004.

(11) License Agreements

The Company obtained an exclusive sublicense in the field of oxygen implantation to the proprietary beam scanning system developed by a consultant to the Company during the development of the first Ibis 1000 implanter. The beam scanning system sublicense agreement also grants the Company certain rights to further sublicense the technology for certain applications. The Company received \$0.1 million, \$0.2 million and \$0.4 million in 2002, 2003 and 2004, respectively, for non-refundable option fees or royalty fees in accordance with non-exclusive sublicense agreements.

(12) Income Taxes

The income tax provision (benefit) attributable to continuing operations consists of the following:

	Year Ended December 31,		
	2002	2003	2004
Current:			
Federal \$	--	\$(9,000)	\$ --
State	1,256	1,256	1,256
Deferred:			
Federal	--	--	--
State	--	--	--
Total	<u>\$1,256</u>	<u>\$(7,744)</u>	<u>\$1,256</u>

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

Income tax expense (benefit) differs from the amount computed by applying the statutory federal income tax rate of 34% to the loss before income taxes from continuing operations as follows:

	2002	2003	2004
Computed "expected" tax benefit	\$(2,476,713)	\$(1,312,368)	\$(1,917,571)
State income taxes, net of federal tax benefit	829	829	829
Other	--	(9,000)	--
Losses not benefited	<u>2,477,140</u>	<u>1,312,795</u>	<u>1,917,998</u>
	<u>\$ 1,256</u>	<u>\$ (7,744)</u>	<u>\$ 1,256</u>

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and liabilities are presented below at December 31:

	2003	2004
Deferred tax assets:		
Net operating loss carryovers.....	\$ 24,541,000	\$ 34,154,000
Accruals not currently deductible for tax purposes.....	1,768,000	1,884,000
General business tax credit carryovers.....	2,990,000	2,779,000
Impairment reserves.....	4,720,000	1,557,000
Other.....	28,000	11,000
Less: Valuation allowance.....	<u>(32,275,000)</u>	<u>(36,859,000)</u>
Net deferred tax assets.....	1,772,000	3,526,000
Deferred tax liabilities:		
Property and equipment, principally due to differences in depreciation.....	(1,613,000)	(3,334,000)
Patents.....	<u>(159,000)</u>	<u>(192,000)</u>
	<u>\$ --</u>	<u>\$ --</u>

As a result of the losses incurred to date by the Company, a 100% valuation allowance has been applied against the Company's deferred tax assets. The net change in the total valuation allowance was an increase of \$9.9 million and \$4.5 million for the years ended amount recorded as net deferred tax assets as of December 31, 2003 and 2004, respectively.

The Company had federal net operating loss and general business credit carryovers of approximately \$82.6 million and \$1.3 million, respectively, at December 31, 2004, that may be used to offset future taxable income and taxes, if any. The federal net operating loss and general business credit carryovers expire from 2005 through 2024. The Company also had state net operating loss and credit carryovers of \$63.9 million and \$1.5 million, respectively, at December 31, 2004, which will expire from 2005 through 2024. Included in the total deferred tax assets, offset by the valuation allowance was \$3.2 million related to the net operating loss carryover resulting from the exercise of employee stock options, the tax benefit of which, when recognized, will be accounted for as a credit to additional paid-in capital rather than a reduction of income tax expense. Net operating loss carryovers and other tax attributes may be limited in the event of certain changes in ownership interests.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

(13) Capitalization

The Company has 50,000,000 shares of common stock and 2,000,000 shares of preferred stock ("Undesignated Preferred Stock") authorized. At December 31, 2004, 94,110 common shares were reserved for issuance upon exercise of options outstanding under the Company's 1993 Employee, Director and Consultant Stock Option Plan. At December 31, 2004, the Company also had 1,430,843 and 200,000 common shares reserved for issuance upon exercise of options outstanding or available for grant under the company's 1997 Employee, Director and Consultant stock option plan, and for exercise of warrants respectively.

In October 2003, Ibis completed an offering of 1,000,000 shares of common stock at \$13.25 per share, including an over allotment option exercised by the underwriter. Net proceeds to the Company were approximately \$12.6 million.

(14) Stock Plans and Warrants

(a) Stock Option Plans

In December 1993, the Board of Directors and stockholders approved the adoption of the Company's 1993 Employee, Director and Consultant Stock Option Plan which provided for the issuance of options to purchase up to 250,000 shares of common stock to employees, consultants and non-employee directors. In May 1996, the stockholders increased to 750,000 shares the aggregate number of shares that may be granted under this plan.

In October 1997, the Board of Directors approved the adoption of the Company's 1997 Employee, Director and Consultant Stock Option Plan (the "1997 Plan") which provides for the issuance of options to purchase up to 750,000 shares of common stock of the Company to employees, consultants and non-employee directors. The stockholders approved the Plan at the May 1998 Annual Stockholders Meeting. In February 2001, the Board of Directors approved an amendment to the 1997 Plan to increase the aggregate number of shares reserved for issuance to 1,350,000. The stockholders approved this amendment at the May 2001 Annual Stockholders Meeting. In February 2004, the Board of Directors approved an amendment to the 1997 Plan to increase the aggregate numbers of shares reserved for issuance to 1,650,000. The stockholders approved this amendment at the May 2004 Annual Stockholders Meeting.

A summary of stock option activity under the plans is as follows:

	Number of shares	Weighted average exercise price of shares
Options outstanding at December 31, 2001	973,166	\$ 19.08
Granted	225,150	7.24
Exercised	--	--
Cancelled	(15,812)	16.61
Options outstanding at December 31, 2002	1,182,504	\$ 16.86
Granted	245,076	7.41
Exercised	(123,667)	7.99
Cancelled	(131,659)	17.97
Options outstanding at December 31, 2003	1,172,254	\$ 15.69
Granted	242,700	4.99
Exercised	(550)	5.56
Cancelled	(66,169)	9.78
Options outstanding at December 31, 2004	<u>1,348,235</u>	<u>\$ 14.06</u>
Options exercisable at December 31, 2004	<u>879,319</u>	<u>\$ 18.22</u>

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

The following table summarizes information concerning outstanding and exercisable options as of December 31, 2004:

Range of exercise prices	Options Outstanding			Options Exercisable	
	Number outstanding	Weighted average remaining contractual life (years)	Weighted average outstanding option price	Number exercisable	Weighted average exercise price
\$.08 - 6.00	368,906	8.5	\$ 4.55	82,843	\$ 5.57
\$ 6.01 - 9.00	210,930	6.2	\$ 7.84	120,439	\$ 7.84
\$ 9.01 - 13.50	488,774	5.3	\$ 10.39	404,162	\$ 10.45
\$ 13.51 - 20.26	65,025	5.0	\$ 18.28	58,025	\$ 18.15
\$ 20.27 - 30.37	11,250	4.9	\$ 24.08	10,500	\$ 24.10
\$ 30.38 - 45.55	46,250	1.9	\$ 36.34	46,250	\$ 36.34
\$ 45.56 - 68.32	154,100	4.4	\$ 46.43	154,100	\$ 46.43
\$ 68.33 - 98.71	3,000	5.2	\$ 83.06	3,000	\$ 83.06
	<u>1,348,235</u>			<u>879,319</u>	

(b) Employee Stock Purchase Plan

On February 24, 2000, the Board of Directors adopted the Ibis Technology Corporation 2000 Employee Stock Purchase Plan (the "Purchase Plan") pursuant to which a total of 300,000 shares of the Company's Common Stock may be sold to eligible employees of the Company at a 15% discount from the market value of the shares. Under the terms of the Purchase Plan, employees may elect to have up to 15% of their base earnings withheld to purchase these shares during each offering period, which is a six-month period. The purchase price under the Purchase Plan is 85% of the lesser of the market price on the beginning or the ending of the offering period. Approximately 55% of eligible employees participated in the Purchase Plan in the initial offering period, 74% in 2002, 52% in 2003, and 51% in 2004. During 2002, 2003, and 2004, the Company sold 62,702, 52,563 and 67,875 shares, respectively, to employees under the Purchase Plan. The stockholders approved the Purchase Plan at the May 2000 Annual Stockholders Meeting.

(c) Warrants

During 2000, 38,263 warrants were exercised for the purchase of 38,263 shares of common stock. Since some of these warrants were exercised on a cashless basis, 35,840 shares of Common Stock were issued. At December 31, 2000, there were additional warrants outstanding to purchase 1,392 shares of common stock at \$8.40 per share. These remaining warrants expired in 2001.

In December 2000, the Company issued warrants to purchase 200,000 shares of Common Stock at \$22.30 per share in connection with a license agreement. The value of the warrants is included in other assets (see note 6) and was calculated using the Black-Scholes option-pricing model with the following assumptions: expected volatility of 93.69%, risk-free interest rate of 5.50%, and an expected life of 5 years. At December 31, 2004, there were warrants outstanding to purchase up to 200,000 shares of Common Stock.

(15) Significant Customers and Concentration of Business Risk

The Company sells its implanters to a limited number of semiconductor manufacturers primarily in the United States and the Pacific Rim.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

Significant customers are shown in dollar amounts and as a percentage of total revenue as follows:

<u>Year Ended</u>	<u>Significant Customers</u>	<u>Amount</u>	<u>%</u>
December 31, 2002	1	\$5,555,000	87%
December 31, 2003	1	\$8,564,115	91%
December 31, 2004	1	\$7,000,000	88%

Accounts receivable from significant customers amounted to \$27,000 and \$0 at December 31, 2003 and 2004, respectively.

Export sales to unaffiliated customers in 2002, 2003 and 2004 were 91%, 9% and 95% of total revenues, respectively.

During 2002, 2003 and 2004, the Company purchased substantially all of its raw materials, components and subassemblies for its implanters from a limited group of suppliers. Disruption or termination of certain of these sources could occur and such disruptions could have a material adverse effect on the Company's business and results of operations.

(16) Other Income

In 2004, the Company recognized a gain in other income of approximately \$200,000, which is the result of an expired wafer volume option that was associated with an asset obtained by the wafer production group from a wafer customer. This volume option was to be used on orders received over a one year period. Since the time expired and no orders were received, the Company reduced its liability and recognized the amount in income, as no further obligation exists.

(17) Discontinued Operations

In July 2004, the Company announced its decision to discontinue its wafer manufacturing business to concentrate its efforts on supplying equipment and process technology to its equipment customers. As a result, the Company recorded an estimated loss on disposal of approximately \$2.1 million for the year ended December 31, 2004, consisting principally of the write off of 300 mm wafer inventory not expected to be used in the Company's ongoing R&D efforts (\$1.2 million) and the net impairment of wafer manufacturing assets expected to be sold (\$0.9 million). In addition to write-offs of wafer manufacturing assets, the Company also recognized \$78 thousand in severance costs associated with employee terminations. The 2002 and 2003 operating activities for the Company's wafer manufacturing business have been classified in discontinued operations: gain (loss) from discontinued operations in the accompanying statement of operations.

Discontinued operations generated sales of \$7.6 million, \$9.0 million and \$4.0 million in 2002, 2003 and 2004 respectively, and operating losses of \$6.8 million, \$17.6 million and \$3.2 million respectively. The 2003 operating loss related to discontinued operations includes \$11.1 million impairment charge related to wafer manufacturing inventory and fixed assets.

(18) Industry Segments

The Company adopted SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information" during 1998. SFAS No. 131 established the standards for reporting information about operating segments in annual financial statements and requires selected information about operating segments in interim financial reports issued to stockholders.

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS - (Continued)

The Company's reportable segments are SIMOX Equipment and Other Products or Services. For purposes of segment reporting, equipment spares and field service revenue are combined and reported as SIMOX Equipment. Government contracts, other services and license revenue are combined and reported as Other Products or Services.

The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies. The Company generally evaluates operating performance based on income or loss before interest and taxes.

The table below provides information for the years ended December 31, 2002, 2003 and 2004 pertaining to the Company's two industry segments after the discontinuance of the wafer manufacturing business.

	<u>SIMOX Equipment</u>	<u>Other Products or Services</u>	<u>Total</u>
<u>Net Revenues</u>			
Year Ended December 31, 2002	\$ 6,102,748	\$ 282,979	\$ 6,385,727
Year Ended December 31, 2003	8,781,907	660,429	9,442,336
Year Ended December 31, 2004	7,535,270	390,975	7,926,245
<u>Operating Income (Loss)</u>			
Year Ended December 31, 2002	(5,533,080)	167,838	(5,365,242)
Year Ended December 31, 2003	(2,165,803)	615,850	(1,549,953)
Year Ended December 31, 2004	(4,036,440)	375,606	(3,660,834)
<u>Assets</u>			
December 31, 2002	5,501,872	546,948	6,048,820
December 31, 2003	1,692,883	118,615	1,811,498
December 31, 2004	13,839,523	187,321	14,026,844
<u>Capital Expenditures</u>			
Year Ended December 31, 2002	134,089	--	134,089
Year Ended December 31, 2003	8,891	--	8,891
Year Ended December 31, 2004	713,349	--	713,349
<u>Depreciation and Amortization of Property and Equipment</u>			
Year Ended December 31, 2002	1,478,767	--	1,478,767
Year Ended December 31, 2003	1,393,269	--	1,393,269
Year Ended December 31, 2004	1,884,687	--	1,884,687

IBIS TECHNOLOGY CORPORATION

NOTES TO FINANCIAL STATEMENTS – (Continued)

The table below provides the reconciliation of reportable segment operating income (loss), assets, capital expenditures, and depreciation and amortization to the Company's totals.

<u>Segment Reconciliation</u>	<u>Years Ended December 31,</u>		
	<u>2002</u>	<u>2003</u>	<u>2004</u>
Loss Before Income Taxes:			
Total operating loss for reportable segments	\$ (5,365,242)	\$ (1,549,953)	\$ (3,660,834)
Corporate general & administrative expenses	(2,174,198)	(2,337,463)	(2,221,167)
Net other income	254,991	27,510	242,085
Income tax expense (benefit)	1,256	(7,744)	1,256
Loss from discontinued operations	(6,810,474)	(17,597,627)	(5,277,369)
Net loss	<u>\$ (14,096,179)</u>	<u>\$ (21,449,789)</u>	<u>\$ (10,918,541)</u>
Assets:			
Total assets for reportable segments	\$ 6,048,820	\$ 1,811,498	\$ 14,026,844
Cash & cash equivalents not allocated to segments	11,745,918	14,174,716	7,726,072
Other unallocated assets	<u>33,904,221</u>	<u>19,356,825</u>	<u>529,724</u>
Total assets	<u>\$ 51,698,959</u>	<u>\$ 35,343,039</u>	<u>\$ 22,282,640</u>
Capital Expenditures:			
Total capital expenditures for reportable segments	\$ 134,089	\$ 8,891	\$ 713,349
Corporate capital expenditures	<u>145,250</u>	<u>21,242</u>	<u>7,653</u>
Total capital expenditures	<u>\$ 279,339</u>	<u>\$ 30,133</u>	<u>\$ 721,002</u>
Depreciation and Amortization:			
Total depreciation & amortization for reportable segments	\$ 1,478,767	\$ 1,393,269	\$ 1,884,687
Corporate depreciation & amortization	<u>145,574</u>	<u>117,191</u>	<u>78,029</u>
Total depreciation & amortization	<u>\$ 1,624,341</u>	<u>\$ 1,510,460</u>	<u>\$ 1,962,716</u>

(19) Selected Quarterly Financial Data (Unaudited)

The Table below provides information for the years 2002, 2003 and 2004.

	<u>First</u>	<u>Second</u>	<u>Third</u>	<u>Fourth</u>
<u>2002</u>	<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>	<u>Quarter</u>
Total sales and revenue	\$ 219,016	\$ 283,004	\$ 5,718,306	\$ 165,401
Gross profit	72,868	183,051	2,134,928	11,542
Loss from continuing operations	(2,284,005)	(2,385,234)	(354,097)	(2,516,104)
Net loss	(3,786,562)	(4,027,840)	(2,272,591)	(4,009,186)
Net loss per common share	(0.44)	(0.43)	(0.24)	(0.42)
<u>2003</u>				
Total sales and revenue	\$ 732,451	\$ 8,189,789	\$ 292,948	\$ 227,148
Gross profit (loss)	594,441	4,494,095	77,730	(99,553)
Profit (loss) from continuing operations	(2,114,481)	2,322,705	(1,872,106)	(2,223,534)
Net profit (loss)	(4,286,353)	1,226,026	(3,162,837)	(15,226,625)
Net profit (loss) per common share	(0.45)	0.13	(0.33)	(1.46)
<u>2004</u>				
Total sales and revenue	\$ 207,908	\$ 203,253	\$ 7,240,770	\$ 274,314
Gross profit (loss)	(125,689)	(174,382)	3,573,945	(84,672)
Profit (loss) from continuing operations	(2,083,103)	(2,058,633)	921,198	(2,661,463)
Net profit (loss)	(3,481,155)	(3,358,284)	(1,677,961)	(2,401,141)
Net profit (loss) per common share	(0.33)	(0.32)	(0.16)	(0.22)

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

Item 9A. CONTROLS AND PROCEDURES

- a) *Evaluation of Disclosure Controls and Procedures.* As of the end of the period covered by this report, the Company carried out an evaluation, under the supervision and with the participation of the Company's management including the Company's President and Chief Executive Officer and Chief Financial Officer of the effectiveness of the design and operation of the company's disclosure controls and procedures, as defined in Exchange Acts Rules 13a-15(e) and 15d-15(e). Based upon that evaluation the Company's President and Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective in enabling the Company to record, process, summarize, and report information required to be included in the Company's periodic SEC filings within the required time period.
- b) *Changes in Internal Controls over Financial Reporting.* There were no changes in the Company's internal controls over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) during the fourth quarter of fiscal year 2004 that has materially affected, or would be reasonably likely to materially affect, the Company's internal controls over financial reporting.

Item 9B. Other Information

Not applicable.

PART III

Item 10. DIRECTORS AND OFFICERS OF THE REGISTRANT

The Response to this item is incorporated by reference from the discussion responsive thereto under the captions "Management" and "Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's Proxy Statement for the 2005 Annual Meeting of Stockholders.

Item 11. EXECUTIVE COMPENSATION

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Executive Compensation" in the Company's Proxy Statement for the 2005 Annual Meeting of Stockholders.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Share Ownership" in the Company's Proxy Statement for the 2005 Annual Meeting of Stockholders.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The response to this item is incorporated by reference from the discussion responsive thereto under the captions "Certain Transactions" and "Executive Compensation—Employment Contracts and Change of Control Arrangements" in the Company's Proxy Statement for the 2005 Annual Meeting of Stockholders.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The response to this item is incorporated by reference from the discussion responsive thereto under the caption "Independent Registered Public Accountants" "Audit and Non Audit Fees" in the Company's Proxy Statement for the 2005 Annual Meeting of Stockholders.

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULE, AND REPORTS ON FORM 8-K

(a) The following documents are filed as part of this Annual Report on Form 10-K.

(1) and (2) See "Index to Financial Statements and Financial Statement Schedule" at Item 8 to this Annual Report on Form 10-K. Other financial statement schedules have not been included because they are not applicable or the information is included in the financial statements or notes thereto.

(3) Exhibits

The following is a list of exhibits filed as part of this Annual Report on Form 10-K.

<u>Exhibit Number</u>	<u>Description</u>
1	Underwriting Agreement dated October 16, 2003, between the Registrant and CDC Securities (Filed as Exhibit 1.1 to the Company's Current Report on Form 8-K filed on October 17, 2003 and incorporated herein by reference)
3.1	- Restated Articles of Organization of Registrant (Filed as Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2000 and incorporated herein by reference)
3.1.1	- Articles of Amendment to the Restated Articles of Organization of the Registrant (Filed as Exhibit 3.1.1 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2000 and incorporated herein by reference)
3.1.2	- Articles of Amendment to the Restated Articles of Organization of the Registrant (Filed as Exhibit 3.1.2 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2000 and incorporated herein by reference)
3.2	- Amended and Restated Bylaws of Registrant (Filed as Exhibit 3.1 to the Company's Quarterly Report on Form 10Q for the Quarter Ended September 30, 2004 and incorporated herein by reference)
4.1	- Article 4 of Restated Articles of Organization (Filed as Exhibit 4.1*)
4.2	- Form of Common Stock Certificate (Filed as Exhibit 4.2*)
10.1	- Master Agreement, dated as of August 7, 1992, among the Registrant, Dr. Hilton Glavish, and Zimec, Inc. (Filed as Exhibit 10.1*)
10.2	- Sublicense Agreement, dated December 21, 1993, among the Registrant, Dr. Hilton Glavish, and Zimec, Inc. (Filed as Exhibit 10.2*)
@10.3	- Business Development Agreement, dated as of July 15, 1994, between the Registrant and Mitsubishi Materials Corporation (Filed as Exhibit 10.3*)
10.4	- Lease Agreement, dated December 22, 1987, as amended, between the Registrant and Thomas J. Flatley d/b/a The Flatley Company ("Flatley") (Filed as Exhibit 10.4*)
10.4A	- Fifth Amendment to Lease Agreement, dated February 4, 1997 between the Registrant and Flatley (Filed as Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q for the Quarter ended March 31, 1997 and Incorporated herein by reference).
10.5	- Form of Noncompetition, Nondisclosure and Assignment of Inventions Agreement between the Registrant and each current employee of the Registrant (Filed as Exhibit 10.11*)
†10.6	- Ibis Technology Corporation 1993 Employee, Director and Consultant Stock Option Plan as amended (Filed as Exhibit 10.15 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended June 30, 1996 and Incorporated herein by reference)
†10.7	- Form of Stock Option Agreement under 1993 Employee, Director and Consultant Stock Option Plan (Filed as Exhibit 10.16*)
†10.8	- 1995/1996 Incentive Compensation Plan of the Registrant (Filed as Exhibit 10.17*)
@10.9	- Capacity Option Agreement, dated September 21, 1995, between Registrant and Motorola Corporation (Filed as Exhibit 10.18*)
10.10	- Exclusive Patent License Agreement, dated November 1, 1994, between the Registrant and Superior Limited (Filed as Exhibit 10.26*)
10.11	- License Agreement, dated as of September 1, 1994, between the Registrant and Nissin Electric Co., Ltd. (Filed as Exhibit 10.27*)

Exhibit Number	Description
10.12	- Equipment Purchase Master Agreement, dated as of May 22, 1996, between Registrant, and IBM (Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K/A (File No.0-13078) filed on September 12, 1996 and incorporated herein by reference).
†10.13	- Ibis Technology Corporation 1997 Employee, Director and Consultant Stock Option Plan (Filed as Exhibit 99.1 to the Company's Form S-8 (File No. 333-45247) filed on January 30, 1998 and incorporated herein by reference).
@10.14	- Task Order dated April 10, 1998, between the Registrant and International Business Machines Corporation ("IBM") (Filed as Exhibit 10.40 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended June 30, 1998 and incorporated herein by reference).
@10.15	- Licensing and Development Agreement, dated June 9, 1998, between the Registrant and IBM (Filed as Exhibit 10.41 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended June 30, 1998 and incorporated herein by reference)
10.16	- Sixth Amendment to Lease dated July 16, 1998, amending Lease Agreement dated December 22, 1987 between the Company and Thomas J. Flatley d/b/a the Flatley Company (Filed as Exhibit 10.42 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 1998 and incorporated herein by reference)
†10.17	- Restated Change of Control Agreement, dated March 24, 2004, between the Registrant and Martin J. Reid.
@10.18	- License Agreement dated July 1, 1999, between the Registrant and Mitsubishi Materials Silicon Corporation (Filed as Exhibit 10.45 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 1999 and incorporated herein by reference)
10.19	- Lease Agreement, dated April 14, 2000, between the Registrant and Flatley (Filed as Exhibit 10.46 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended June 30, 2000 and incorporated herein by reference)
10.20	- Ibis Technology Corporation 2000 Employee Stock Purchase Plan (Filed as Exhibit 99.1 to the Company's Form S-8 (File No. 333-36706) filed on May 10, 2000 and incorporated herein by reference)
@10.21	- Advantox 150 License Agreement dated November 1, 2000, between the Registrant and Mitsubishi Materials Silicon Corporation (Filed as Exhibit 10.48 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2000 and incorporated herein by reference)
†10.22	- Employment Agreement, dated December 27, 2000 between the Registrant and Martin J. Reid (Filed as Exhibit 10.49 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2000 and incorporated herein by reference)
@10.23	- License Agreement dated December 15, 2000, between the Registrant and International Business Machines Corporation ("IBM") (Filed as Exhibit 10.50 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2000 and incorporated herein by reference)
10.24	- Patent License Agreement dated December 15, 2000, between the Registrant and IBM (Filed as Exhibit 10.51 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2000 and incorporated herein by reference)

<u>Exhibit Number</u>	<u>Description</u>
10.25	- Stock Purchase Warrant Agreement dated December 15, 2000, between the Registrant and IBM (Filed as Exhibit 10.52 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2000 and incorporated herein by reference)
10.26	- Amendment of Lease Agreement dated September 25, 2001, between the Company and Thomas J. Flatley d/b/a the Flatley Company. (Filed as Exhibit 10.53 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2001 and incorporated herein by reference)
10.27	- Master Lease Agreement dated September 25, 2001, between the Company and Heller Financial Leasing, Inc., including additional Collateral Rider and Schedule A to Additional Collateral Rider. (Filed as Exhibit 10.54 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2001 and incorporated herein by reference)
10.28	- Amendment to Warrant Agreement dated June 1, 2001 between the Company and International Business Machines Corporation. (Filed as Exhibit 10.55 to the Company's Quarterly Report on Form 10-Q for the Quarter Ended September 30, 2001 and incorporated herein by reference)
@10.29	Amended and Restated License Agreement dated November 14, 2002, between the Registrant and IBM (Filed as Exhibit 10.30 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2002 and incorporated herein by reference)
10.30	Amendment to the Patent License Agreement dated November 14, 2002, between the Registrant and IBM (Filed as Exhibit 10.31 to the Company's Annual Report on Form 10-K for the Year Ended December 31, 2002 and incorporated herein by reference)
†10.31	Change of Control Agreement, dated March 24, 2005, between the Registrant and William J. Schmidt.
11	- Statement regarding computation of per share income (loss)
23	- Consent and Report on Financial Statement Schedule of KPMG LLP
31.1	- CEO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	- CFO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	- CEO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S. Section 1350)
32.2	- CFO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S. Section 1350)

* Previously filed with the Commission as Exhibits to, and incorporated herein by reference from, the Company's Registration Statement filed on Form S-1, File No. 333-1174, effective April 2, 1996.

@ Confidential treatment previously obtained from the Securities and Exchange Commission. The portions of the document for which confidential treatment has been granted are marked "Confidential" and such confidential portions have been filed separately with the Securities and Exchange Commission.

† Management contract or compensatory plan, contract or arrangement.

Where a document is incorporated by reference from a previous filing, the Exhibit number of the document in that previous filing is indicated in parentheses after the description of such document.

(B) *Financial Statement Schedules*

Schedule II -- Valuation and Qualifying Accounts

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in Danvers, Massachusetts on March 17, 2005.

IBIS TECHNOLOGY CORPORATION

By: /s/ Martin J. Reid
Martin J. Reid
President

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities indicated and on the dates indicated.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
By: <u>/s/ Martin J. Reid</u> Martin J. Reid	President, Chief Executive Officer and Chairman (principal executive officer) and Director	March 30, 2005
By: <u>/s/ William J. Schmidt</u> William J. Schmidt	Chief Financial Officer, Treasurer, Clerk, (principal financial and accounting officer)	March 30, 2005
By: <u>/s/ Dimitri A. Antoniadis, Ph.D.</u> Dimitri A. Antoniadis, Ph.D.	Director	March 30, 2005
By: <u>/s/ Robert L. Gable</u> Robert L. Gable	Director	March 30, 2005
By: <u>/s/ Leslie B. Lewis</u> Leslie B. Lewis	Director	March 30, 2005
By: <u>/s/ Donald McGuinness</u> Donald McGuinness	Director	March 30, 2005
By: <u>/s/ Lamberto Raffaelli</u> Lamberto Raffaelli	Director	March 30, 2005
By: <u>/s/ Cosmo S. Trapani</u> Cosmo S. Trapani	Director	March 30, 2005

IBIS TECHNOLOGY CORPORATION
VALUATION AND QUALIFYING ACCOUNTS

For the Years Ended December 31, 2002, 2003 and 2004

<u>Description</u>	<u>Balance at Beginning of Period</u>	<u>Reclass (1)</u>	<u>Expense</u>	<u>Amounts Written Off (2)</u>	<u>Balance at End of Period</u>
Allowance for Doubtful Accounts					
December 31, 2002.....	65,000	--	--	--	65,000
December 31, 2003.....	65,000	--	--	--	65,000
December 31, 2004.....	65,000	--	(37,470)	(2,530)	25,000
Reserve for Inventory Obsolescence					
December 31, 2002.....	669,000	--	290,000	--	959,000
December 31, 2003.....	959,000	--	524,000	(47,000)	1,436,000
December 31, 2004.....	1,436,000	4,603,000	226,000	(2,493,000)	3,772,000

- (1) At December 31, 2003 equipment inventory and the related reserves were included in construction in progress within property and equipment. The balances were reclassified to inventory in the second quarter of fiscal 2004.
- (2) Includes inventory written off of \$1.2 million and inventory reserves included in discontinued operations of \$1.3 million.

RESTATED AGREEMENT

This Agreement is entered into as of the 24th day of March, 2005 by and between Ibis Technology Corporation, a Massachusetts corporation (the "Company") and Martin J. Reid (the "Executive").

WHEREAS the Executive and the Company previously executed a Retention Agreement, dated as of September 20, 1999 (the "Previous Agreement");

WHEREAS the Executive and Company wish to restate and amend the Previous Agreement in its entirety, replacing it with this Agreement;

WHEREAS the Executive desires to enter into this Agreement to provide him with certain financial protection in the event that his employment terminates for certain reasons in connection with or within a period of time after a change of control of the Company; and

WHEREAS the Board of Directors of the Company has determined that it is in the best interests of the Company to enter into this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Executive agree as follows:

1. **DEFINITIONS.**

(a) Cause. As used herein, the term "Cause" shall be as defined in the employment agreement by and between the Company and the Executive, dated November 12, 2003 (the "Employment Agreement").

(b) Change Of Control. As used herein, a "Change of Control" shall be deemed to have occurred if (i) there is a sale or transfer of all or substantially all of the assets of the Company in one or a series of transactions; (ii) any "person," as such term is used in Section 13(d) of the Securities Exchange Act of 1934, as amended (or any successor provision) (the "Exchange Act"), together with all "affiliates" and "associates" (as such terms are defined in Rule 12b-2 under the Exchange Act or any successor provision) of such person, shall become the "beneficial owner" or "beneficial owners" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act or any successor provision), directly or indirectly, of securities of the Company representing in the aggregate thirty percent (30%) or more of either (1) the then outstanding shares of common stock of the Company or (2) the combined voting power of all then outstanding securities of the Company having the right under ordinary circumstances to vote in an election of the Board of Directors of the Company (hereafter referred to as an "Acquisition"); PROVIDED, that, notwithstanding the foregoing, an Acquisition shall not be deemed to have occurred for purposes of this clause (ii) solely as the result of an acquisition of securities by the Company which, by reducing the number of shares of common stock or other voting securities outstanding, increases

(x) the proportionate number of shares of common stock beneficially owned by any person to thirty percent (30%) or more of the common stock then outstanding or (y) the proportionate voting power represented by the voting securities beneficially owned by any person to thirty percent (30%) or more of the combined voting power of all then outstanding voting securities; or (iii) there is a merger or consolidation between the Company and an entity other than a subsidiary of the Company in which the Company is not the continuing or surviving corporation and pursuant to which the holders of the Company's voting stock immediately prior to such merger or consolidation would not be the holders immediately after such merger or consolidation of at least 50% of the voting stock of the continuing or surviving corporation.

© Good Reason. As used herein, a "Good Reason" shall mean either a good faith determination by the Executive following a Change of Control that he can no longer fulfill his duties as specified in the Employment Agreement or a material change in the Executive's authority, functions, duties or responsibilities as President and Chief Executive Officer of the Company (including, without limitation, material changes in the control or managerial structure of the Company) which would cause his position with the Company to become of less dignity, responsibility, importance or scope than his position on the date hereof or as of any subsequent date prior to the Change of Control, a reduction in the Executive's salary or a material reduction in benefits from the amount of salary paid or the value of the benefits available on the date hereof or as of any subsequent date prior to the Change of Control, a transfer of the principal location of the place of performance of the Executive's duties from the Danvers, Massachusetts area without the Executive's consent, or the failure of the Board of Directors of the Company to elect the Executive as President and Chief Executive Officer of the Company at any time such elections are made, or removal from such office of the Company, PROVIDED that such material change is not in connection with a termination of the Executive's employment for Cause, and, PROVIDED, FURTHER, that any notice of termination by the Executive for Good Reason shall be given by him within ninety (90) days of when he becomes aware of such change, of such failure or removal.

2. **SEVERANCE COMPENSATION.** In the event that at or near the time of, in connection with, or within a period of two (2) years after, a Change of Control, the Executive's employment with the Company is terminated either (i) by the Company other than for Cause or (ii) by the Executive for a Good Reason, then the Company, within ten (10) days of the applicable termination date, shall pay to the Executive, in addition to any amounts due to Executive for services rendered prior to the termination date, a lump sum amount equal to two (2) times the Executive's highest Annual Salary during the preceding three year period, including the year of such termination. Annual Salary shall mean Executive's annual base salary and bonus, excluding reimbursements and amounts attributable to stock options and other non-cash compensation.

3. **CONTINUATION OF BENEFITS.** In the event that at the time of, in connection with, or within a period of (2) two years after a Change in Control, the Executive's employment with the Company is terminated either (i) by the Company other than for Cause or (ii) by the Executive for a Good Reason, then the Company shall arrange to provide the Executive with life, disability, group dental and health insurance benefits substantially similar to those the Executive was receiving, immediately prior to the termination, until the earlier of (a) two (2) years following his

termination date, or (b) the date upon which he becomes eligible for such coverage offered by a subsequent employer. Executive's termination date shall be the date of any qualifying event under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA") and the COBRA coverage that may be available to Executive, if any, shall be offset by any period of coverage provided hereunder.

3A. SPECIFIED EMPLOYEE. Notwithstanding the provisions of Sections 2 and 3, if the Executive is a "specified employee" within the meaning of Section 409A(a)(2)(B) of the Internal Revenue Code of 1986, as amended (the "Code"), then payment of the amount described in Section 2(a) shall be made on the date which is six (6) months after the applicable termination date or, if earlier, the date of death of the Executive, and the benefit described in Section 3 shall commence on the date which is six (6) months after the applicable termination date and, subject to the other provisions of Section 3, continue until thirty (30) months after the applicable termination date.

4. NO DUPLICATION OF COMPENSATION OR BENEFITS. The Executive's severance compensation and benefits set forth in Sections 2 and 3 above shall replace, and be provided in lieu of, any severance compensation and benefits that may be provided to Executive under any other agreement, including but not limited to those provided under Section 3(b) of the Employment Agreement; PROVIDED, that this prohibition against duplication shall not be construed to otherwise limit Executive's rights as to payments or benefits provided under any pension plan (as defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended), deferred compensation, stock, stock option or similar plan sponsored by the Company; and FURTHER PROVIDED, that notwithstanding the foregoing, all other rights and obligations set forth in the Employment Agreement shall continue as provided for therein.

5. ENFORCEABILITY; REDUCTION.

(a) If any provision of this Agreement shall be deemed invalid or unenforceable as written, this Agreement shall be construed, to the greatest extent possible, or modified, to the extent allowable by law, in a manner which shall render it valid and enforceable and any limitation on the scope or duration of any provision necessary to make it valid and enforceable shall be deemed to be a part thereof. No invalidity or unenforceability of any provision contained herein shall affect any other portion of this Agreement.

(b) Notwithstanding anything provided herein, if the Executive is a "disqualified individual" (as defined in Section 280G of the Code, and the severance compensation and continuation of benefits provided for in Sections 2 and 3 hereof (collectively "Severance Compensation") together with any other payments which the Executive has the right to receive from the Company (or its affiliates and subsidiaries), would constitute a "parachute payment" (as defined in Section 280G(b)(2) of the Code), the Severance Compensation shall be reduced. The reduction shall be in an amount so that the present value of the total amount received by the Executive from the Company (or its affiliates and subsidiaries) will be one dollar (\$1.00) less than three (3) times the Executive's Base Amount (as defined in Section 280G of the Code) so

that no portion of the amounts received by the Executive shall be subject to the excise tax imposed by Section 4999 of the Code (excise tax).

The determination as to whether any reduction in Severance Compensation is necessary and the amount of any such reduction shall be made by the Company's independent public accountants (the "Accounting Firm") which shall provide detailed supporting calculations both to the Company and to the Executive within fifteen (15) business days of the Executive's termination date. Any such determination by the Accounting Firm shall be conclusive and binding upon the Executive and the Company. The Executive shall determine which part of the Severance Compensation shall be eliminated or reduced consistent with the requirements of this Section 5 and shall notify the Company promptly in writing; PROVIDED, that if the Executive does not make such determination within ten (10) business days of the receipt of the calculations made by the Accounting Firm, the Company shall determine which part of the Severance Compensation shall be eliminated or reduced consistent with the requirements of this Section 5 and shall notify the Executive promptly in writing of such election.

If through error or otherwise the Executive should receive payments under this Agreement, together with other payments the Executive has the right to receive from the Company (or its affiliates and subsidiaries), in excess of one dollar (\$1.00) less than three times his Base Amount, the Executive shall immediately repay the excess to the Company upon notification that an overpayment has been made.

6. MITIGATION. The Executive shall not be required to mitigate the amount of any payment provided for in this Agreement by seeking other employment or otherwise, nor shall the amount of any payment provided for herein be reduced by any compensation earned by the Executive as the result of employment by another employer or by retirement benefits after the termination date or otherwise.

7. NOTICES. All notices, requests, consents and other communications hereunder shall be in writing, shall be addressed to the receiving party's address set forth below or to such other address as a party may designate by notice hereunder, and shall be either (i) delivered by hand, (ii) made by telex, telecopy or facsimile transmission, (iii) sent by overnight courier, or (iv) sent by registered or certified mail, return receipt requested, postage prepaid.

If to the Company:

Ibis Technology Corporation

32 Cherry Hill Drive

Danvers, MA 01923

Attn: Board of Directors

If to the Executive:

Martin J. Reid

All notices, requests, consents and other communications hereunder shall be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if made by telex, telecopy or facsimile transmission, at the time that receipt thereof has been acknowledged by electronic confirmation or otherwise, (iii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iv) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

8. **ENTIRE AGREEMENT.** The Previous Agreement is hereby restated and amended in its entirety with this Agreement. This Agreement embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

9. **MODIFICATIONS AND AMENDMENTS.** The terms and provisions of this Agreement may be modified or amended only by written agreement executed by all parties hereto.

10. **WAIVERS AND CONSENTS.** The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

11. **ASSIGNMENT.** The rights and obligations under this Agreement may not be assigned by either party hereto without the prior written consent of the other party.

12. **BENEFIT.** All statements, representations, warranties, covenants and agreements in this Agreement shall be binding on the parties hereto and shall inure to the benefit of the respective successors and permitted assigns of each party hereto. Nothing in this Agreement shall be construed to create any rights or obligations except among the parties hereto, and no person or entity shall be regarded as a third-party beneficiary of this Agreement.

13. **GOVERNING LAW.** This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the Commonwealth of Massachusetts, without giving effect to the conflict of law principles thereof.

14. **JURISDICTION AND SERVICE OF PROCESS.** Any legal action or proceeding with respect to this Agreement may be brought in the courts of the Commonwealth of Massachusetts or of the United States of America for the District of Massachusetts. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. Each of the parties hereto irrevocably consents to the service of process of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by certified mail, postage prepaid, to the party at its address set forth in Section 7 hereof.

15. **NO WAIVER OF RIGHTS, POWERS AND REMEDIES.** No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

16. **COUNTERPARTS.** This Agreement may be executed in one or more counterparts, and by different parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

EXHIBIT 10.17

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COMPANY:

IBIS TECHNOLOGY CORPORATION

By:

Authorized Officer

EXECUTIVE:

MARTIN J. REID

AGREEMENT

This Agreement is entered into as of the 24th day of March, 2005 by and between Ibis Technology Corporation, a Massachusetts corporation (the "Company") and William Schmidt (the "Executive").

WHEREAS the Executive is Chief Financial Officer of the Company and has been employed in such capacity since May 2004;

WHEREAS because of the skills and experience of the Executive and his knowledge of the Company, his service to the Company is very important to the future success of the Company;

WHEREAS the Executive desires to enter into this Agreement to provide him with certain financial protection in the event that his employment terminates for certain reasons in connection with or within a period of time after a change of control of the Company; and

WHEREAS the Board of Directors of the Company has determined that it is in the best interests of the Company to enter into this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Executive agree as follows:

1. DEFINITIONS.

(a) Cause. As used herein, "Cause" shall mean a termination for one or more of the following reasons, as determined by a majority vote of the Board: (i) Executive's continuing failure to render services to the Company in accordance with his assigned duties and such failure of performance continues for a period of more than 120 days after notice thereof has been provided to the Executive by the Board; (ii) the Executive's willful misconduct or gross negligence; (iii) the Executive is convicted of a felony, either in connection with the performance of his obligations to the Company or which conviction materially adversely affects his ability to perform such obligations, or materially adversely affects the business activities, reputation, goodwill or image of the Company; (iv) willful disloyalty, deliberate dishonesty, and breach of fiduciary duty; (v) the commission by the Executive of an act of fraud, embezzlement or deliberate disregard of the rules or policies of the Company which results in significant loss, damage or injury to the Company; (vi) the Executive's willful unauthorized disclosure of any trade secret or confidential information of the Company; or (vii) Executive's willful commission of an act which constitutes unfair competition with the Company or which induces any employee or customer of the Company to break a contract with the Company.

In making any determination under this Section 1(a), the Board shall act fairly and in utmost good faith and shall give the Executive an opportunity to appear and be heard at a meeting of the Board or any committee thereof and present evidence on his behalf. For purposes of this Section, no act, or failure to act, by the Executive shall be considered "willful" unless

done, or admitted to be done, by the Executive in bad faith and without reasonable belief that such action or omission was in the best interest of the Company.

(b) Change Of Control. As used herein, a "Change of Control" shall be deemed to have occurred if (i) there is a sale or transfer of all or substantially all of the assets of the Company in one or a series of transactions; (ii) any "person," as such term is used in Section 13(d) of the Securities Exchange Act of 1934, as amended (or any successor provision) (the "Exchange Act"), together with all "affiliates" and "associates" (as such terms are defined in Rule 12b-2 under the Exchange Act or any successor provision) of such person, shall become the "beneficial owner" or "beneficial owners" (as defined in Rules 13d-3 and 13d-5 under the Exchange Act or any successor provision), directly or indirectly, of securities of the Company representing in the aggregate thirty percent (30%) or more of either (1) the then outstanding shares of common stock of the Company or (2) the combined voting power of all then outstanding securities of the Company having the right under ordinary circumstances to vote in an election of the Board of Directors of the Company (hereafter referred to as an "Acquisition"); PROVIDED, that, notwithstanding the foregoing, an Acquisition shall not be deemed to have occurred for purposes of this clause (ii) solely as the result of an acquisition of securities by the Company which, by reducing the number of shares of common stock or other voting securities outstanding, increases (x) the proportionate number of shares of common stock beneficially owned by any person to thirty percent (30%) or more of the common stock then outstanding or (y) the proportionate voting power represented by the voting securities beneficially owned by any person to thirty percent (30%) or more of the combined voting power of all then outstanding voting securities; or (iii) there is a merger or consolidation between the Company and an entity other than a subsidiary of the Company in which the Company is not the continuing or surviving corporation and pursuant to which the holders of the Company's voting stock immediately prior to such merger or consolidation would not be the holders immediately after such merger or consolidation of at least 50% of the voting stock of the continuing or surviving corporation.

© Good Reason. As used herein, a "Good Reason" shall mean a material change in the Executive's authority, functions, duties or responsibilities as Chief Financial Officer of the Company (including, without limitation, material changes in the control or managerial structure of the Company) which would cause his position with the Company to become of less dignity, responsibility, importance or scope than his position on the date hereof or as of any subsequent date prior to the Change of Control, a reduction in the Executive's salary or a material reduction in benefits from the amount of salary paid or the value of the benefits available on the date hereof or as of any subsequent date prior to the Change of Control, a transfer of the principal location of the place of performance of the Executive's duties from the Danvers, Massachusetts area without the Executive's consent, or the failure of the Board of Directors of the Company to elect the Executive as Chief Financial Officer of the Company at any time such elections are made, or removal from such office of the Company, PROVIDED that such material change is not in connection with a termination of the Executive's employment for Cause, and, PROVIDED, FURTHER, that any notice of termination by the Executive for Good Reason shall be given by him within ninety (90) days of when he becomes aware of such change, of such failure or removal.

2. **SEVERANCE COMPENSATION.** In the event that at or near the time of, in connection with, or within a period of two (2) years after, a Change of Control, the Executive's employment with the Company is terminated either (i) by the Company other than for Cause or (ii) by the Executive for a Good Reason, then the Company, within ten (10) days of the applicable termination date, shall pay to the Executive, in addition to any amounts due to Executive for services rendered prior to the termination date, a lump sum amount equal to one (1) times the Executive's highest Annual Salary during the preceding three year period, including the year of such termination. Annual Salary shall mean Executive's annual base salary and bonus, excluding reimbursements and amounts attributable to stock options and other non-cash compensation.

3. **CONTINUATION OF BENEFITS.** In the event that at the time of, in connection with, or within a period of (2) two years after a Change in Control, the Executive's employment with the Company is terminated either (i) by the Company other than for Cause or (ii) by the Executive for a Good Reason, then the Company shall arrange to provide the Executive with life, disability, group dental and health insurance benefits substantially similar to those the Executive was receiving, immediately prior to the termination, until the earlier of (a) one (1) years following his termination date, or (b) the date upon which she becomes eligible for such coverage offered by a subsequent employer. Executive's termination date shall be the date of any qualifying event under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA") and the COBRA coverage that may be available to Executive, if any, shall be offset by any period of coverage provided hereunder.

3A. **SPECIFIED EMPLOYEE.** Notwithstanding the provisions of Sections 2 and 3, if the Executive is a "specified employee" within the meaning of Section 409A(a)(2)(B) of the Internal Revenue Code of 1986, as amended (the "Code"), then payment of the amount described in Section 2(a) shall be made on the date which is six (6) months after the applicable termination date or, if earlier, the date of death of the Executive, and the benefit described in Section 3 shall commence on the date which is six (6) months after the applicable termination date and, subject to the other provisions of Section 3, continue until thirty (30) months after the applicable termination date.

4. **NO DUPLICATION OF COMPENSATION OR BENEFITS.** The Executive's severance compensation and benefits set forth in Sections 2 and 3 above shall replace, and be provided in lieu of, any severance compensation and benefits that may be provided to Executive under any other agreement, PROVIDED, that this prohibition against duplication shall not be construed to otherwise limit Executive's rights as to payments or benefits provided under any pension plan (as defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended), deferred compensation, stock, stock option or similar plan sponsored by the Company.

5. **ENFORCEABILITY; REDUCTION.**

(a) If any provision of this Agreement shall be deemed invalid or unenforceable as written, this Agreement shall be construed, to the greatest extent possible, or modified, to the extent allowable by law, in a manner which shall render it valid and enforceable and any limitation on the scope or duration of any provision necessary to make it valid and enforceable

shall be deemed to be a part thereof. No invalidity or unenforceability of any provision contained herein shall affect any other portion of this Agreement.

(b) Notwithstanding anything provided herein, if the Executive is a "disqualified individual" (as defined in Section 280G of the Internal Revenue Code ("Code"), and the severance compensation and continuation of benefits provided for in Sections 2 and 3 hereof (collectively "Severance Compensation") together with any other payments which the Executive has the right to receive from the Company (or its affiliates and subsidiaries), would constitute a "parachute payment" (as defined in Section 280G(b)(2) of the Code), the Severance Compensation shall be reduced. The reduction shall be in an amount so that the present value of the total amount received by the Executive from the Company (or its affiliates and subsidiaries) will be one dollar (\$1.00) less than three (3) times the Executive's Base Amount (as defined in Section 280G of the Code) so that no portion of the amounts received by the Executive shall be subject to the excise tax imposed by Section 4999 of the Code (excise tax).

The determination as to whether any reduction in Severance Compensation is necessary and the amount of any such reduction shall be made by the Company's independent public accountants (the "Accounting Firm") which shall provide detailed supporting calculations both to the Company and to the Executive within fifteen (15) business days of the Executive's termination date. Any such determination by the Accounting Firm shall be conclusive and binding upon the Executive and the Company. The Executive shall determine which part of the Severance Compensation shall be eliminated or reduced consistent with the requirements of this Section 5 and shall notify the Company promptly in writing; PROVIDED, that if the Executive does not make such determination within ten (10) business days of the receipt of the calculations made by the Accounting Firm, the Company shall determine which part of the Severance Compensation shall be eliminated or reduced consistent with the requirements of this Section 5 and shall notify the Executive promptly in writing of such election.

If through error or otherwise the Executive should receive payments under this Agreement, together with other payments the Executive has the right to receive from the Company (or its affiliates and subsidiaries), in excess of one dollar (\$1.00) less than three times his Base Amount, the Executive shall immediately repay the excess to the Company upon notification that an overpayment has been made.

6. MITIGATION. The Executive shall not be required to mitigate the amount of any payment provided for in this Agreement by seeking other employment or otherwise, nor shall the amount of any payment provided for herein be reduced by any compensation earned by the Executive as the result of employment by another employer or by retirement benefits after the termination date or otherwise.

7. NOTICES. All notices, requests, consents and other communications hereunder shall be in writing, shall be addressed to the receiving party's address set forth below or to such other address as a party may designate by notice hereunder, and shall be either (i) delivered by hand, (ii) made by telex, telecopy or facsimile transmission, (iii) sent by overnight courier, or (iv) sent by registered or certified mail, return receipt requested, postage prepaid.

If to the Company:

Ibis Technology Corporation

32 Cherry Hill Drive

Danvers, MA 01923

Attn: Board of Directors

If to the Executive:

William Schmidt

All notices, requests, consents and other communications hereunder shall be deemed to have been given either (i) if by hand, at the time of the delivery thereof to the receiving party at the address of such party set forth above, (ii) if made by telex, telecopy or facsimile transmission, at the time that receipt thereof has been acknowledged by electronic confirmation or otherwise, (iii) if sent by overnight courier, on the next business day following the day such notice is delivered to the courier service, or (iv) if sent by registered or certified mail, on the 5th business day following the day such mailing is made.

8. ENTIRE AGREEMENT. This Agreement embodies the entire agreement and understanding between the parties hereto with respect to the subject matter hereof and supersedes all prior oral or written agreements and understandings relating to the subject matter hereof. No statement, representation, warranty, covenant or agreement of any kind not expressly set forth in this Agreement shall affect, or be used to interpret, change or restrict, the express terms and provisions of this Agreement.

9. MODIFICATIONS AND AMENDMENTS. The terms and provisions of this Agreement may be modified or amended only by written agreement executed by all parties hereto.

10. WAIVERS AND CONSENTS. The terms and provisions of this Agreement may be waived, or consent for the departure therefrom granted, only by written document executed by the party entitled to the benefits of such terms or provisions. No such waiver or consent shall be deemed to be or shall constitute a waiver or consent with respect to any other terms or provisions of this Agreement, whether or not similar. Each such waiver or consent shall be effective only in the specific instance and for the purpose for which it was given, and shall not constitute a continuing waiver or consent.

11. ASSIGNMENT. The rights and obligations under this Agreement may not be assigned by either party hereto without the prior written consent of the other party.

12. **INDEPENDENT ADVICE; BENEFIT.** The Executive agrees and acknowledges that he has had the opportunity to seek independent advice from legal, accounting and tax advisors of his own choosing in connection with this Agreement. All statements, representations, warranties, covenants and agreements in this Agreement shall be binding on the parties hereto and shall inure to the benefit of the respective successors and permitted assigns of each party hereto. Nothing in this Agreement shall be construed to create any rights or obligations except among the parties hereto, and no person or entity shall be regarded as a third-party beneficiary of this Agreement.

13. **GOVERNING LAW.** This Agreement and the rights and obligations of the parties hereunder shall be construed in accordance with and governed by the law of the Commonwealth of Massachusetts, without giving effect to the conflict of law principles thereof.

14. **JURISDICTION AND SERVICE OF PROCESS.** Any legal action or proceeding with respect to this Agreement may be brought in the courts of the Commonwealth of Massachusetts or of the United States of America for the District of Massachusetts. By execution and delivery of this Agreement, each of the parties hereto accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. Each of the parties hereto irrevocably consents to the service of process of any of the aforementioned courts in any such action or proceeding by the mailing of copies thereof by certified mail, postage prepaid, to the party at its address set forth in Section 7 hereof.

15. **NO WAIVER OF RIGHTS, POWERS AND REMEDIES.** No failure or delay by a party hereto in exercising any right, power or remedy under this Agreement, and no course of dealing between the parties hereto, shall operate as a waiver of any such right, power or remedy of the party. No single or partial exercise of any right, power or remedy under this Agreement by a party hereto, nor any abandonment or discontinuance of steps to enforce any such right, power or remedy, shall preclude such party from any other or further exercise thereof or the exercise of any other right, power or remedy hereunder. The election of any remedy by a party hereto shall not constitute a waiver of the right of such party to pursue other available remedies. No notice to or demand on a party not expressly required under this Agreement shall entitle the party receiving such notice or demand to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the party giving such notice or demand to any other or further action in any circumstances without such notice or demand.

16. **COUNTERPARTS.** This Agreement may be executed in one or more counterparts, and by different parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

EXHIBIT 10.31

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COMPANY:

IBIS TECHNOLOGY CORPORATION

By:

Authorized Officer

EXECUTIVE:

WILLIAM SCHMIDT

IBIS TECHNOLOGY CORPORATION
STATEMENT RE: COMPUTATION OF PER SHARE LOSS

	<u>Years Ended December 31,</u>					
	<u>2002</u>		<u>2003</u>		<u>2004</u>	
	Diluted	Basic	Diluted	Basic	Diluted	Basic
Loss from:						
Continuing operations	\$ (7,285,705)	\$ (7,285,705)	\$ (3,852,162)	\$ (3,852,162)	\$ (5,641,172)	\$ (5,641,172)
Discontinued operations	<u>(6,810,474)</u>	<u>(6,810,474)</u>	<u>(17,597,627)</u>	<u>(17,597,627)</u>	<u>(5,277,369)</u>	<u>(5,277,369)</u>
Net Loss	<u><u>\$ (14,096,179)</u></u>	<u><u>\$ (14,096,179)</u></u>	<u><u>\$ (21,449,789)</u></u>	<u><u>\$ (21,449,789)</u></u>	<u><u>\$ (10,918,541)</u></u>	<u><u>\$ (10,918,541)</u></u>
Weighted average common shares outstanding-	9,207,922	<u>9,207,922</u>	9,727,513	<u>9,727,513</u>	10,665,842	<u>10,665,842</u>
Potential common share equivalents.	--		--		--	
Weighted average shares outstanding	<u>9,207,922</u>		<u>9,727,513</u>		<u>10,665,842</u>	
Earnings (loss) per common share and common share equivalents:						
Continuing operations	\$ (0.79)	\$ (0.79)	\$ (0.40)	\$ (0.40)	\$ (0.53)	\$ (0.53)
Discontinued operations	<u>(0.74)</u>	<u>(0.74)</u>	<u>(1.81)</u>	<u>(1.81)</u>	<u>(0.49)</u>	<u>(0.49)</u>
Net loss	<u><u>\$ (1.53)</u></u>	<u><u>\$ (1.53)</u></u>	<u><u>\$ (2.21)</u></u>	<u><u>\$ (2.21)</u></u>	<u><u>\$ (1.02)</u></u>	<u><u>\$ (1.02)</u></u>

REPORT AND CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Ibis Technology Corporation:

The audits referred to in our report dated March 17, 2005 included the related financial statement schedule for each of the years in the three-year period ended December 31, 2004, included in the annual report on Form 10-K. The financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statement schedule based on our audits. In our opinion, such financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We consent to the incorporation by reference in the registration statements (No. 333-78440) on Form S-3, (No. 333-09237) on Form S-3, (No. 333-82497) on Form S-3, (No. 333-09239) on Form S-8, (No. 333-81452) on Form S-8, (No. 333-45247) on Form S-8, and (No. 333-36706) on Form S-8, and (No. 333-611184) on Form S-8 of Ibis Technology Corporation of our report dated March 17, 2005, relating to the balance sheets of Ibis Technology Corporation as of December 31, 2003 and 2004, and the related statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2004, which report appears in the December 31, 2004 annual report on Form 10-K of Ibis Technology Corporation.

/s/ KPMG LLP

Boston, Massachusetts
March 30, 2005

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Martin J. Reid, certify that:

1. I have reviewed this Annual Report on Form 10-K of Ibis Technology Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2005

/s/ Martin J. Reid

Martin J. Reid

President and Chief Executive Officer

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, William J. Schmidt, certify that:

1. I have reviewed this Annual Report on Form 10-K of Ibis Technology Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2005

/s/ William J. Schmidt
William J. Schmidt
Chief Financial Officer

**CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)**

In connection with the accompanying Annual Report of Ibis Technology Corporation (the "*Company*") on Form 10-K for the fiscal year ended December 31, 2004 (the "*Report*"), I, Martin J. Reid, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company

Dated: March 30, 2005

/s/ Martin J. Reid

Martin J. Reid

President and Chief Executive Officer

**CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)**

In connection with the accompanying Annual Report of Ibis Technology Corporation (the "*Company*") on Form 10-K for the fiscal year ended December 31, 2004 (the "*Report*"), I, William J Schmidt Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company

Dated: March 30, 2005

/s/ William J. Schmidt

William J. Schmidt
Chief Financial Officer

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MANAGEMENT AND CORPORATE INFORMATION

Board of Directors

Martin J. Reid

Director; President, Chief Executive Officer and Chairman of the Board

Dimitri A. Antoniadis, Ph.D.

Director; Professor of Electrical Engineering, MIT

Robert L. Gable**

Director; Retired Chairman and CEO, Unitrode Corporation

Leslie B. Lewis* **

Director; Partner, Watermill Ventures

Donald McGuinness

Director; Chairman, White Electronic Designs, Inc.

Lamberto Raffaelli*

Director; President, LNX Corporation

Cosmo S. Trapani*

Director; Director, Hittite Microwave Corporation

** Audit Committee*

*** Compensation Committee*

Corporate Officers

Martin J. Reid

President and CEO

William J. Schmidt

Chief Financial Officer and Treasurer

Gerald T. Cameron

Chief Operating Officer

Julian G. Blake, Ph.D.

Vice President of Engineering

Robert P. Dolan

Vice President of Wafer Technology

Transfer Agent

Continental Stock Transfer & Trust Co.
New York, New York

General Counsel

Goodwin Proctor LLP
Boston, Massachusetts

Independent Auditors

KPMG LLP
Boston, Massachusetts

Corporate Offices

Corporate Headquarters:
32 Cherry Hill Drive
Danvers, Massachusetts 01923

Sales Office:
844 Via Palo Alto
Aptos, California 95003

Annual Meeting

The 2005 Annual Meeting of Stockholders will be held on Thursday, May 12, 2005 at 11:00 a.m. at the offices of Ibis Technology Corporation, 32 Cherry Hill Drive, Danvers, Massachusetts.

Form 10-K

The Annual Report on Form 10-K filed with the Securities and Exchange Commission is available to stockholders upon written request to:

Investor Relations
Ibis Technology Corporation
32 Cherry Hill Dr.
Danvers, Massachusetts 01923

Internet

Financial statements and other information on Ibis are available electronically on our website at www.ibis.com.

"SAFE HARBOR" STATEMENT UNDER THE PRIVATE SECURITIES LITIGATION REFORM ACT

This Annual Report may contain express or implied forward-looking statements regarding the Company, its financial condition and its future prospects, including those disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2004. These statements are neither promises nor guarantees, but rather are subject to risks and uncertainties which could cause actual results to differ materially from those described in the forward-looking statements. All stockholders and potential stockholders are encouraged to review carefully the discussion of risks and uncertainties, as well as further details concerning the Company's business and other information contained in the Company's filings with the Securities and Exchange Commission, including the Company's Annual Report on Form 10-K for the year ended December 31, 2004, which is included with this report.



IBIS TECHNOLOGY CORPORATION

22 Cherry Hill Drive

Andover, Massachusetts 01923

WWW.IBIS.COM